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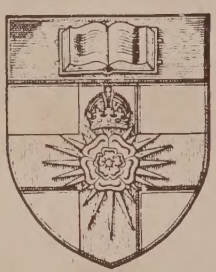

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REPORTS

FROM

COMMISSIONERS:

SIXTEEN VOLUMES.

—*(6.)*—

CHILDREN'S EMPLOYMENT;
FACTORIES.

Session

5 February —— *28 July* 1863.

VOL. XVIII.

1863.

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N. B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Report; *and the* Figures *at the* end of the line, *refer to the* MS. Paging *of the Volumes arranged for The House of Commons.*

CHILDREN EMPLOYMENT COMMISSION:

[3170.] FIRST REPORT of the COMMISSIONERS - - - - p. 1

FACTORIES:

[3076.] REPORTS of the INSPECTORS of FACTORIES to HER MAJESTY'S PRINCIPAL SECRETARY of STATE for the HOME DEPARTMENT, for the Half-year ending 31st October 1862 - - - - 437

[3206.] REPORTS of the INSPECTORS for the Half-year ending 30th April 1863 - - - - - - - - - - 587

CHILDREN'S EMPLOYMENT COMMISSION (1862).

FIRST REPORT

OF

THE COMMISSIONERS.

WITH APPENDIX.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE EDWARD EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1863.

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CONTENTS.

	Page
COMMISSION	iii
CONTENTS OF THE REPORT	iv
REPORT	vii
APPENDIX:	
Reports and Evidence from Assistant Commissioners.	
FRANCIS DAVY LONGE, ESQ., B.A.:—	
Report on the Pottery Manufacture	1
Evidence	10
JOHN EDWARD WHITE, ESQ., M.A.:—	
Report on the Lucifer Match Manufacture	41
Evidence	45
Report on the Percussion Cap Manufacture	105
Evidence	107
HENRY WILLIAM LORD, ESQ., M.A.:—	
Report on the Manufacture of Paper Hangings or "Paper Staining"	119
Evidence	122
Report on "Finishers," "Hookers," &c.	144
Evidence	147
Report on Fustian Cutters	159
Evidence	164
JOHN EDWARD WHITE, ESQ.:—	
Report on the Lace Manufacture	182
Evidence	187
Report on the Hosiery Manufacture	264
Evidence	266
Evidence as to the Violation of the Law relative to the Employment of Climbing Boys in Sweeping Chimneys	295
Memorial of Employers in the Potteries	322
Abstract of Factory Act	322
Laws and Regulations of Foreign Countries respecting the Labour and Education of Children and Young Persons employed in Trades and Manufactures	325
Instructions to Assistant Commissioners	337
Circulars	338
Tabular Forms	339

3

COMMISSION.

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith.

To Our trusty and well-beloved Hugh Seymour Tremenheere, Esquire, Richard Dugard Grainger, Esquire, and Edward Carleton Tuffnell, Esquire, greeting:

Whereas an humble Address was presented unto us by the Lords Spiritual and Temporal in Parliament assembled, humbly praying that We would be graciously pleased to direct an Inquiry to be made into the Employment of Children and young Persons in Trades and Manufactures not already regulated by Law.

Now know ye, that We, reposing great Trust and Confidence in your Ability and Discretion, have nominated, constituted, and appointed, and do by these Presents nominate, constitute, and appoint you the said Hugh Seymour Tremenheere, Richard Dugard Grainger, and Edward Carleton Tuffnell, to be Our Commissioners for the purposes aforesaid.

And for the better Discovery of the Truth in the Premises, We do by these Presents give and grant unto you, or any Two of you, full Power and Authority to call before you, or any Two of you, such Persons as you shall judge necessary, by whom you may be the better informed of the Truth in the Premises, and to inquire of the Premises and every part thereof, by all other lawful ways and means whatsoever.

And We do hereby also give and grant unto you, or any Two of you, full Power and Authority, when the same shall appear to be requisite, to administer an Oath or Oaths to any Person or Persons whatsoever, to be examined before you, or any Two of you, touching or concerning the Premises.

And Our further Will and Pleasure is, that you, Our said Commissioners, do, with as little delay as may be consistent with a due discharge of the Duties hereby imposed upon you, certify unto Us, under your Hands and Seals, your several proceedings in the premises.

And We do further will and command, and by these Presents ordain, that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any Two of you, shall and may from time to time proceed in the execution thereof, and of every matter or thing therein contained, although the same be not continued from time to time by adjournment.

And We hereby command all and singular Our Justices of the Peace, Sheriffs, Mayors, Bailiffs, Constables, Officers, Ministers, and all other Our loving Subjects whatsoever, as well within Liberties as without, that they may be assistant to you, and each of you, in the execution of these Presents.

And for your assistance in the execution of this Our Commission, we have made choice of Our trusty and well-beloved Prideaux Selby, Esquire, Barrister at Law, to be Our Secretary to this Our Commission, and to attend you, whose services and assistance We require you to use, from time to time, as occasion may require.

In Witness whereof We have caused these Our Letters to be made Patent.

Witness Ourself at Westminster, the Eighteenth Day of February, in the Twenty-fifth Year of Our Reign.

By Warrant under the Queen's Sign Manual.

C. ROMILLY.

CONTENTS OF THE REPORT.

Page

Preliminary proceedings of Commissioners on entering upon their duties - vii
Districts to which the Assistant Commissioners were sent - vii
Subjects reported upon - vii
Ready aid given by employers to the Assistant Commissioners - viii

THE POTTERY MANUFACTURE.

Memorial from employers in Staffordshire potteries inviting inquiry - viii
Three inquiries made respecting Staffordshire potteries in the last 22 years - ix
Two divisions of the subject—
Physical - ix
Moral - xi
Facts and conclusions respecting the physical condition of the persons employed - xi
Occupations, prevalent diseases, and rate of mortality - xi
Physical degeneracy of potters - xi
Memorial of employers only relates to the moral aspect of the question - xi
If causes which produce physical suffering and degeneracy are capable of being modified by legislation, reason to expect the co-operation of employers - xi
Two divisions of the pottery manufacture - xi
The potting department - xi
Number of children and young persons employed - xi
Injurious nature of employment as at present conducted - xi
The finishing department - xi
Number of children and young persons employed - xii
Injurious nature of employment as at present conducted - xii
Causes which produce injurious effects - xii
Of the 11,000 children and young persons employed 2,500 are employed as jigger-turners and mould-runners - xii
Jigger-turning, hard work - xii
Mould-running; *i.e.* running with moulds, backwards and forwards into hot-stoves, most injurious - xii
Effect of hot stoves and dust in producing disease - xii
Can any remedy be applied to this injurious action of the stoves and the workshops? - xiii
History of the pottery manufacture of Staffordshire - xiii
The "stoves" for the most part remain as they were in the early periods of the manufacture - xiv
Some instances of improvement - xiv
General character of the majority - xiv
Possibility of improving them, with economical result to employer - xv
Injurious effect of want of ventilation in the workshops of the finishing department - xv
In the older and smaller potteries most of the evils exist together - xv
In some of the more modern some of the arrangements good, some defective - xv
Instances and modes of improvement already adopted in some cases - xvi
Remedies - xvi
Physical - xvi
Moral - xvi
Physical remedies:—
1. Improved ventilation, &c. of potters' stove-rooms - xvii
(*a*) By improved form of stove - xvii
Examples that may suggest improved form of stove - xvii
Dimensions and cost of present stove - xviii
New and improved stove at Messrs. Pinder and Bourne's, Burslem - xviii
Instances of imperfect improvements - xviii
Want of room for enlargement not a valid argument - xix
(*b*) By alternative of having a larger supply of moulds - xix
Economy resulting from - xix
Average number of potters' stoves per manufacturer - xx
Average cost of improvements - xx

Page

2. Improved ventilation of workrooms in the finishing department - xx
Number of manufactories to which legislation, if adopted, would be likely to apply - xxi
Precedents for legislative interference - xxii
Proposed mode of carrying legislative interference in the potteries into effect - xxiv
Medical inspector to be temporarily appointed xxiv
Powers and duties of - xxiv
His services not likely to be required for more than two years - xxiv
Improvements to be required to be effected within two years from the passing of the Act - xxv
After that period the potteries to be placed under the Factory Act - xxv
3. Other specific regulations for the protection of health. Employment of "dippers" and "scourers" - xxv
"Special rules" should be adopted, to be agreed upon in the first instance between the owner or occupier of pottery and the medical inspector, for the protection of the health of the "dippers" and the "scourers," and for mitigating the amount of dust in the potters' shops - xxvii
4. Overtime should be put an end to - xxvii
5. Meal-times ought to be brought into conformity with the regulations of the Factory Act - xxix

Moral remedies:—

6. The half-time system of the Factory Act the best provision for education in connexion with wages-yielding labour - xxix
The gradual application of this system to the potteries desirable - xxx
Doubts and objections best removed by a review of the progress of legislation, and of opinion on this subject - xxx
Factory Act of 1833 - xxx
Objections set forth against the half-time system - xxxi
Temporary inconvenience may arise - xxxi
Observations on wages - xxxii
On redundancy of hands - xxxii
Employment of children will not create redundancy of adult labour - xxxii
Supply and demand will regulate proportion
Reduced number of children employed - xxxii
Factory Act of 1844 - xxxiii
Difficulties and objections precisely similar to those now raised in relation to applying the Act to the potteries - xxxiii
Apprehensions groundless - xxxiii
Advantages of employment on alternate days xxxiii
Proportion of children under 13 had decreased - xxxiv
Increasing benefits of the half-time system, physical and moral, to the working population - xxxiv
Summary of results - xxxiv
Do. - xxxiv
Success of the half-time system, as stated by Mr. Chadwick - xxxv
Arguments against the application of the Act to the potteries considered - xxxvi
Statistics of children and young persons in the earthenware manufacture of the potteries xxxvi
No difficulty in applying half-time system to girls - xxxvii
As to boys, results of experience of Factory Act - xxxvii
Answers to objections as to boys - xxxvii
Improvement in education of children at work in the potteries much needed - xl
Irregularity and indiscipline of boys will be corrected - xl
"Shipping orders" and other sudden orders; objections answered - xl
Meetings in the potteries on the half-time system - xli

Page
Superfluous number of boys now kept in certain branches - - - - xlii
Half-time system at one time employed by Messrs. Minton - - - - xlii
Meeting of 27th December 1862 on the half-time system - - - - xliii
Alternate day system probably most suitable to the potteries - - - - xliv
Answer to objection as to girls - - xlv
7. Further security for education by requiring a certificate of education as a condition of working full time - - - - xlvi
Responsibility of employers as to observance of the Act, how guarded - - - - - xlvii
Act should be introduced by three successive steps of six months each, according to precedent of Factory Act of 1833 - - - - - - xlvii
Potteries out of Staffordshire - - - - xlvii
The legislation suitable for Staffordshire would also be suitable for them - - - - - xlviii

THE LUCIFER MATCH MANUFACTURE.

State of at the time of the inquiry of 1840-2 - - xlviii
Peculiar disease since developed in, and general unhealthiness of the manufacture - - - xlviii
Medical and other evidence relating to the "jaw disease" - - - - - - xlviii
The places of work - - - - - - xlix
Statistics of persons employed - - - xlix
Injurious state of large proportion of small places of work - - - - - - xlix
Processes of the manufacture - - - - 1
Satisfactory sanitary arrangements of most of the large places of work - - - - - 1
Powers of Public Health Acts insufficient - - lii
Sanitary precautions enforced in France, Prussia, Austria, &c. - - - - - - lii
Addition that should be made to them - - lii
Dr. Letheby's recommendations coincide with the above - - - - - - - liii
Many of the large factories in this country have already adopted them - - - - - liii
Recommendations - - - - - - liii
The same sanitary recommendations made by medical officer of the Privy Council - - - - liv
Reasons why education clauses and other provisions of the Factories Acts are much required for this branch of manufacture - - - - liv
Irregularity of meal times, and overtime - - lvi

PERCUSSION CAP MANUFACTURE.

The percussion cap manufacture should be placed under the same regulations as the lucifer match manufacture - - - - - lvii
The Government factory at Woolwich Arsenal should be placed under the same regulations - - lviii

THE MANUFACTURE OF PAPER HANGINGS OR PAPER STAINING.

Local distribution of the manufacture - - lviii
Number of children and young persons employed - lviii
Number of firms chiefly using machinery - - lix
Firms using no machinery - - - - lix
Children and young persons employed by each - lix
Males and females employed - - - - lix
Amount of overtime great; chiefly in the machine printing - - - - - - - lix
Legislation admitted to be required - - - lx
The only question is the amount of restriction desirable lx
Draft bill proposed by Mr. Potter, paper stainer, Over-Darwen, in 1861, to be submitted to Parliament - lx
Principal proposals of - - - - lxi
Its principal object to secure permission to work through the meal times - - - - lxi
Reasons for the proposal to be exempt from the factory regulations as to meal times - - - lxi
Great amount of loss if machines stopped at meal times lxii
Contrary opinions; amount of loss from stopping the machines for meal times exaggerated - - lxii
Machine printing should be placed under Factory Act lxii
Instances where the machines stop at meal times - lxiii
Loss of time and not loss of material probably the main reason why stopping for meals is objected to by some employers - - - - lxiv
Alternatives, if placed under Factory Act: additions to machinery, or employment of adult labour - lxiv
The substitution of adult labour contemplated by several witnesses; its cost not material - - lxiv
Page
Block-printers should also be placed under Factory Act - - - - - - - lxv
Reasons for:—
1. Their case cannot be separated from that of the machine printers - - - - lxvi
1. The children and young persons employed by, should receive protection against working over-time - - - - - - lxvi
Over-time easily obviated in the case of the block-printers - - - - lxvi
3. Education clauses in the Factory Act much required for the children employed in block and machine printing - - - lxvi
Objections by block printers against the factory half-time system - - - - - - lxvii
1. They could not charge their "teerers" without injury to their work - - - - lxvii
Rather than change their teerers they would dismiss all under 13 - - - lxviii
2. They could not keep boys under 13 at half-time and consequent half wages, in consequence of the great demand for boys' labour in London - - - - - lxviii
In either case the object of the education clauses of the Factory Act would be frustrated - - lxviii
Means of meeting this - - - - lxviii
Provisions of the Factory Act desired by some of the men - - - - - - - lxviii
Others incline to acquiesce in the proposals of the masters - - - - - - lxix
The deviations from the provisions of the Factory Act proposed by the Masters examined - - lxix
No valid claim established for permanent exemption from the provisions of the Factory Act - - lxx
But temporary relaxation of some of the requirements of the Factory Act permissible - - - lxxi
Means proposed - - - - - lxxi
Hours of labour for children and young persons for 18 months after passing of the Act - - lxxi
"Mill gearing" in paper-staining works ought to be fenced - - - - - - lxxii
State of places of work - - - - lxxii
The trade a healthy one - - - - lxxii
The only danger to health arises in the "brushing" process, from the dust of French chalk - - lxxii
Ditto ditto emerald green - - lxxii
When emerald green is dangerous - - - lxxii
1. If badly manufactured - - - lxxii
2. If imperfectly mixed - - - - lxxiii
3. If worked at continuously - - - lxxiii
4. If cleanliness be not observed - - lxxiii
The sources of danger are to a considerable extent guarded against - - - - - lxxiii
If the paper-staining manufacture is placed under the Factory Act, it will be a sufficient protection - lxxiv

FINISHERS, HOOKERS, &c.

Finishing works supposed to have been include in the Bleaching and Dyeing Works Act - - - lxxiv
Decision, on appeal, that they were not - - lxxiv
Calendering works also omitted - - - lxxv
Bill of the House of Commons to amend Act, by placing under it calendering and finishing - - lxxv
Finishers employ "hookers," who would be included in the amendment - - - - - lxxv
Proviso to exclude shipping warehouses - - lxxv
This Bill would leave much of the evil uncorrected - lxxv
"Makers-up and packers" and shipping merchants also employ "hookers" - - - - lxxv
Total number of hookers employed - - - lxxv
Of the total number, there would be—
Included in the amended Bill about 400 - - lxxv
Excluded from the amended Bill about 2,000, their circumstances being similar - - - lxxv
Evidence referred to showing no cause for this exemption - - - - - - lxxv

FUSTIAN CUTTERS.

Number of children and young persons - - lxxvi
Age - - - - - - - - lxxvi
Mode of hiring - - - - lxxvi
Hours of work and meals - - - - lxxvii
Nature of the work and physical condition - - lxxvii
Deformity caused by the peculiar work - - lxxvii
Moral condition - - - - - lxxvii
On the application of factory act to this trade - lxxviii
Opinion of employers and operatives - - lxxviii
Children working at home - - - - lxxx
Recommendations - - - - - - lxxx

LACE MANUFACTURE.

	Page
Machine lace making:	
A small portion still not coming under the Act	lxxx
Machine lace finishing:	
Numbers of children and young persons employed	lxxx
Places of work and hours of work injurious	lxxx
Early age at which they commence work	lxxxi
Pillow lace making:	
Injurious effects of early age of beginning work, of foul air, and of long hours, &c.	lxxxi
Machine and pillow lace "making-up":	
Can overtime be prevented in the preceding branches of employment?	lxxxi
General effects upon health and morals	lxxxi

HOSIERY MANUFACTURE.

Hand labour alone used in all these branches of the lace and hosiery manufacture	lxxxii
Many manufactures carried on by hand labour will be included in our next report	lxxxii
Factory laws of other countries	lxxxii
Subjects now being inquired into, and those which remain for investigation	lxxxii

REPORT ON THE VIOLATION OF THE LAW RELATIVE TO THE EMPLOYMENT OF CLIMBING BOYS in SWEEPING CHIMNEYS.

	Page
Reason of inquiry	lxxxiii
Existing legislative enactments	lxxxiii
Violation of the Act of Parliament	lxxxiv
Increase of climbing boys	lxxxiv
Experience of London, Edinburgh, &c.	lxxxv
Benefits from licensing chimney sweepers	lxxxv
Age of climbing boys	lxxxvi
Hours of work	lxxxvi
Cruelty and danger of the climbing system	lxxxvi
Chimney sweepers' cancer	lxxxvii
Sale of climbing boys	lxxxviii
Moral condition	lxxxviii
Efficiency of sweeping machine	lxxxix
Examples of crooked chimneys	lxxxix
Diminished number of fires from the use of the machine in London	xc
Neglect of the provisions of the Act of Parliament	xci
Insufficiency of the Act	xci
Recommendations	xciii
Number of children and young persons in the branches of manufacture included in the recommendations of this report	xciii

FIRST REPORT OF THE COMMISSIONERS.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

1. We, the Commissioners appointed by Your Majesty to inquire into the employment of children and young persons, in trades and manufactures not already regulated by law, humbly report to Your Majesty, in manner following, our proceedings in the execution of Your Majesty's Commission

2. The Commission by which Your Majesty was pleased to appoint us to our office, was issued on the 18th of February 1862. Its terms, which we are bound to construe by the Factories Regulation Act, 1844 (7 & 8 Vict. c. 15. s. 73), designate, by the word "children," those under 13 years of age, and by the word "young persons," those of the age of 13, and under the age of 18 years.

3. Three Assistant Commissioners were assigned to us, and appointed by the Secretary of State for the Home Department, namely, Francis Davy Longe, Esq., B.A., of Oriel College, Oxford, Barrister-at-Law, John Edward White, Esq., M.A., Fellow of New College, Oxford, Barrister-at-Law, and Henry William Lord, Esq., M.A., late Fellow of Trinity College, Cambridge, Barrister-at-Law.

Preliminary Proceedings of Commissioners on entering upon their duties.

4. On entering upon our duties, our first concern was to frame instructions for the guidance of the Assistant Commissioners in the collection and verification of evidence; to construct tabular forms, to be filled up by employers of children and young persons; to draw up queries to be answered by them, which might aid the Assistant Commissioners in their personal examinations, and economise their time and labour; and to frame circulars to employers, magistrates, clergymen, and others, directing their attention to the inquiry, explaining its objects, and inviting their co-operation.

5. To those instructions to the Assistant Commissioners, tabular forms, and other documents, which we have added in the appendix to this Report, we beg leave to refer, as exhibiting the view we take of the nature and extent of the inquiry, the spirit in which it should be conducted, and the expectations we venture to entertain that its results will contribute to the general welfare.

6. We were called upon, at the commencement of our proceedings, to consider proposals from a large number of persons, who expressed an interest in the objects of the inquiry, that we should first undertake certain branches of manufacture which, according to the representations of those persons, invited or imperatively required immediate investigation.

7. Three classes of manufactures presented themselves for our consideration.

1st. Those in respect to which a disposition had been manifested, as above stated, by either the employers or the work-people engaged in them, or by both, in favour of legislative measures being extended to them.

2nd. Those which had grown into importance since the inquiry of 1840–42, some of which, moreover, came within the category of "Noxious Trades," and were well known as causing serious injury to the health of the persons engaged in them.

3rd. Those in which our predecessors, the Children's Employment Commissioners of 1840, had shown, by their Reports, and the evidence collected by them, that the greatest need existed for legislative protection for the young, and to whom it had not yet been extended by Parliament.

8. We decided to direct our inquiries, first, to the two first-named classes of manufactures.

Districts to which the Assistant Commissioners were sent.

9. Accordingly, on the 19th April, we issued our instructions to the Assistant Commissioners. Mr. Longe was directed to proceed to the Staffordshire potteries, from which a memorial had been transmitted to us on the part of a large body of the employers, inviting inquiry, and expressing a desire for some legislative interference on behalf of the young. Mr. Lord was directed to inquire into the paper-staining manufacture, and into the employment of fustian cutting, many influential employers in both of these branches of business having expressed a willingness to be placed under legislative restrictions, for the benefit of their workpeople. To Mr. White was assigned the duty of inquiring into the circumstances of the lucifer-match manufacture, in connexion with which the most serious and

afflicting malady, the jaw disease, had developed itself, since the period of the inquiry of 1840, when the manufacture was in its infancy; and the children and young persons engaged in which, we had reason to believe, were in a condition, and employed in a manner, greatly needing investigation. Mr. White was also subsequently employed in an inquiry into the percussion cap manufacture, a subject presenting some analogous features to the above, in its noxious effects, and in other particulars. Mr. Lord has also completed an inquiry into the "hookers" and others employed in the "finishing" department of warehouses and other finishing works in Lancashire, and Mr. White one into that portion of the lace and hosiery manufacture of Nottingham, and elsewhere, not yet subject to regulation.

Subjects reported upon.

10. Since the completion of the above inquiries others have been proceeded with. From the completed inquiries we are enabled to draw up this, our first report, which embraces—

I.—The Pottery Manufacture.
II.—The Lucifer Match Manufacture.
III.—The Percussion Cap Manufacture.
IV.—The Paper-staining Manufacture.
V.—The Employment of Finishers, "Hookers," &c.
VI.—The Fustian Cutters.
VII.—The Lace Manufacture.
VIII.—The Hosiery Manufacture.

11. Much evidence of a very painful nature having been tendered to us respecting the inefficiency of the Act of 3 & 4 Vict. c. 85., relating to the employment of climbing boys by chimney sweepers, and the cruelty consequently often inflicted upon a large number of boys—represented to us as amounting to at least 2,000,—whom it was the intention of the Legislature to protect, we conceived that the subject came, although not within the letter, at least within the spirit of our instructions, and we therefore requested the Assistant Commissioners to avail themselves of any opportunities that might come in their way in the course of their more immediate duties, to verify the facts which had been presented to us.

12. We have therefore added,—

IX.—A Report on the Violation of the Law regulating the Employment of "Climbing "Boys."

Ready aid given by employers to the Assistant Commissioners.

We acknowledge with great satisfaction the ready manner in which the inquiries of the Assistant Commissioners were seconded by all classes of persons to whom they addressed themselves. The tabular forms have been filled up, and the queries answered by employers, in sufficient numbers and with sufficient completeness to permit of our stating, with a fair approximation to the truth, the number of children and young persons employed in the branches of manufacture in question, at all ages under 18, and their relative proportion to the adult workpeople; the usual hours of work; in what cases, and to what extent, over-hours or night-work prevail; and what amount of time is allowed for meals, and whether they are taken regularly, or irregularly. The witnesses comprise employers, agents, managers of works, medical men, ministers of religion, officers connected with the administration of relief to the poor, police officers, magistrates, and others; but the most numerous class of witnesses has designedly been that of the children and young persons themselves; and their evidence has been as much as possible given in their own words, as the readiest and most precise mode of exhibiting the amount of instruction they may have received, the command it may have given them, if any, over the means of future self-improvement, and the prospect it appears to hold out of its influencing, or not, to any valuable extent, their future lives and characters. The comments of the Assistant Commissioners on the places of work, their explanations of the nature of each kind of manufacture, and its different details, and their views of the conclusions to which the evidence leads, afford material assistance towards a correct appreciation of the various points which call for solution.

I.—The Pottery Manufacture.

The Pottery Manufacture.

13. We have mentioned above that a memorial had been transmitted to us on the part of a large body of employers in the Staffordshire potteries expressing a desire for some legislative interference on behalf of the young.

Memorial from employers.

14. This memorial, addressed to Your Majesty's Principal Secretary of State for the Home Department, was signed by 26 persons, representing nearly the whole of the principal pottery works in Staffordshire. We have subjoined it, *in extenso*, in the Appendix, p. 322.

15. It states that those whose signatures are attached had under their consideration certain facts, which they specify, with regard to the employment of children in the pottery district; which facts had led them to the conviction, "that some legislative enact- "ment was wanted to prevent children from being employed at so early an age, and to "secure to them at any rate a minimum of education." The Pottery Manufacture.

16. The memorialists then proceed to urge "the desirableness of appointing a com- "mission to inquire into the matter, and consult as to the best means of remedying the "evils complained of."

17. A request of this kind addressed to the Government cannot but be accepted as a proof of an appreciation of the benefits which those branches of manufacture, to which legislative regulations in favour of the young have been applied, have derived from them. It is also a plain indication of the prevalence of a desire on the part of this large body of influential employers, to use their best endeavours to arrive at such conclusions as shall promise to be of the greatest practical value in reference to the objects to be attained.

18. In dealing therefore with the question of the potteries of the whole kingdom we shall direct our attention first to those of Staffordshire, not only on account of the desire for inquiry just adverted to, but on account of the pre-eminent position of the Staffordshire potteries as compared with the rest of the trade.

19. The pottery manufacture of Staffordshire has been the subject of three inquiries under the sanction of Parliament within the last 22 years with reference to its effects upon persons employed in it. In 1841 Mr. Scriven made his report to the Children's Employment Commissioners, "upon the physical and moral condition of the children labouring "in that important district." In 1860 Dr. Greenhow, by direction of the Medical Officer of the Privy Council, and continuing an inquiry of the previous year as to the "local influences which occasion in particular districts of England an habitually high rate of "mortality from particular diseases," presented his report upon "the special causes which "develop pulmonary diseases," "with excessive mortality in the pottery district of "Staffordshire." (Public Health, 3rd Report, pp. 1. 102–13.) Recent inquiries.

20. Our Assistant Commissioner Mr. Longe commenced his inquiry in April of last year. The principal facts remaining as recorded in the large mass of evidence collected by Mr. Scriven, Mr. Longe has confined himself to exhibiting the general features of the subject, and substantiating the facts as they exist at the present time. His report presents a clear summary of the points especially calling for attention.

21. Of the two great divisions of the subject with which these respective inquiries deal, the physical and moral, we will first bring into view the facts and conclusions arrived at in the course of all the above independent inquiries in regard to the physical condition of the persons employed, principally as respects the influence upon health of the various branches of the employment. Divisions of the subject.

22. Mr. Scriven speaks (Appendix to 2nd Report of the Children's Employment Commissioners, 1842. Part 1. C. 5.) of the— Physical condition of persons employed.

"Dull and cadaverous countenances" of the "dippers" and that "from their disregard of prophylactic measures . . . paralysis, colica Pictonum,* and a host of other nervous diseases, are to be met with in all their aggravated forms." . . . "*Phthisis* is a very prevalent disease here," and in Mr. Scriven's opinion owes its rise and progress to the processes of "scouring," and "ground-laying," and to those carried on in the "sifting rooms" and in the "hot-houses," (stove rooms.) . . . "The class of children whose physical condition has the strongest claims to consideration is that of the 'jiggers' and 'mould-runners,' who by the very nature of their work are rendered pale, weak, diminutive, and unhealthy." "Each man employs two boys, one to turn the jigger, or horizontal wheel, from morning to night; the other to carry the ware just formed from the 'whirler' to the hot-house, and the moulds back. These hot-houses are rooms within rooms, closely confined except at the door, and without windows. In the centre stands a large cast-iron stove, heated to redness, increasing the temperature often to 130 degrees. I have burst two thermometers at that point," (C. 5.) . . . "These boys are constantly running to and fro into the open air, in all weathers. The results of such transitions are soon realized, and many die of consumption, asthma, and acute inflammations." . . . (C. 6.)

23. Dr. Greenhow states (p. 102 of his report) that—

"In the registration district of Stoke-upon-Trent and Wolstanton," which forms "the well known pottery district of Staffordshire," the mortality from pulmonary diseases is very great, "and largely exceeds the rate which prevailed during the nine years 1847–55 in any one of the three groups of healthy districts in the north, south, and south-west of England, which may be considered as showing the normal rate, and therefore be used as a standard of comparison."

* "So called from its frequency among the Pictones or inhabitants of Poicton."—Dr. Watson's Lectures on the Principles, &c. of Physic, vol. 2, p. 470.

The Pottery Manufacture.

24. The actual average rate of mortality from pulmonary diseases was as follows, during the 5 years 1855–59:—

In Stoke-upon-Trent	- Males	7·85 per 1,000.
„ „	- Females	6·17 „
In Wolstanton -	- Males	7·17 „
„ -	- Females	7·44 „

25. In contrast with the above, the average number of deaths per 1,000 of either sex from pulmonary affections in the three groups of healthy districts was as follows:

Cause of Death.	Six Northern Standard Districts.		Six Southern Standard Districts.		Six South-western Standard Districts.	
	Male.	Female.	Male.	Female.	Male.	Female.
Pulmonary Affections* - - -	2·97	3·04	4·11	4·54	4·46	3·95

26. Further, Dr. Greenhow states that whereas only 30·6 per cent. of the men in Stoke above the age of 20 years, and 30·4 per cent. of those of Wolstanton, were employed in the potteries, more than half of the deaths of men over 20 years of age from pulmonary disease in Stoke, and nearly two-fifths of those in Wolstanton were deaths of potters.

27. And inasmuch as, for reasons which he clearly states, the rest of the population may be put out of the question, it is clear that the class of operatives employed in the earthenware manufacture—

"Has suffered a much larger mortality from pulmonary diseases in proportion to its number, than the rest of the population, and may therefore be presumed to be exposed to some causes of pulmonary disease from which the rest of the population is exempt." (P. 104.)

28. Dr. Greenhow describes the potter as "of short stature and sickly appearance." (P. 104.) It was stated to him by a medical practitioner at Hanley, Mr. Boothroyd, that—

"Each successive generation of potters becomes more dwarfed and less robust than the preceding one," and that, in his opinion, but for their occasional intermarriage with strangers, this deterioration would proceed even more rapidly."

29. And this statement was confirmed by another medical man, Mr. McBean, who said—

"He had observed a marked degeneration in the potters, especially shown in a diminution of stature and breadth, since he had commenced practice among them 25 years ago." (P. 105.)

30. The medical evidence collected by Mr. Longe supplies ample confirmation to the statements of Mr. Scriven and Dr. Greenhow.

31. Dr. J. T. Arledge, Senior Physician to the North Staffordshire Infirmary, states p 24), that—

"The potters as a class, both men and women, but more especially the former, represent a degenerated population, both physically and morally. They are as a rule stunted in growth, ill-shaped, and frequently ill-formed in the chest; they become prematurely old, and are certainly short lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter's asthma or potter's consumption.

"Scrofula, attacking the glands, or bones, or other parts of the body, is a disease of two-thirds, or more of the potters.

"The men are more subject to chest disease than the women. The latter, employed in 'dipping' and in 'printing,' suffer most. Those engaged in painting, burnishing, and in the ware rooms least. The most sickly men are the hollow ware pressers, firemen, and dippers." . . .

"That the 'degenerescence' of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and to intermarriages with more healthy races."

32. Mr. Charles Parsons, late House Surgeon of the North Staffordshire Infirmary, in transmitting to Mr. Longe a list of children employed in potteries who had been out-patients of that hospital, and specifying their diseases (p. 22), speaks very strongly of the manner in which the health of such children, both in-patients and out-patients, had been sacrificed, and adds, that as there are certain laws of life which cannot be transgressed

* This group consists of the several diseases classed together by the Registrar General under the title of "Diseases of the Respiratory Organs" and phthisis.

without involving the punishment of disease, it is not difficult to see the effect that a persistence in violating those laws must have on the physical development of future generations. The Pottery Manufacture.

33. Mr. Benjamin Boothroyd, Surgeon, and Mayor of Hanley, states in reference to the children, that the employment is "one of the most deleterious and destructive of "human life in the country," and that it is rendered so "by the faulty construction, "imperfect ventilation, and overcrowding of the workshops" (p. 23). He suggests, therefore, that this branch of the subject "might profitably receive some attention from the Legislature."

34. It is clear that the *physical* aspects of this question are of quite as great if not of greater importance than the *moral*.

35. The memorial of the employers above quoted, and given at length in the Appendix (p. 322), refers principally to its moral aspect. It states that the children are employed in the potteries at a very early age, and in a way to interfere injuriously with their education; it gives certain facts and statistics confirmatory of that statement; and adds, "that "the employment of children at so early an age is injurious to their health, stunts their "growth, and causes in many cases a tendency to consumption, and distortion of the "spine, &c.," as they have "the evidence of competent medical men to testify," and the conclusion that the memorialists arrive at is "that some legislative enactment is "wanted to prevent children from being employed at so early an age, and to secure to "them at any rate a minimum of education." Memorial of employers relates principally to moral aspect of the question.

36. We trust that a manufacture which has assumed so prominent a place in the eye of the whole world will not long be subject to the remark, that its great success is accompanied with the physical deterioration, wide-spread bodily suffering, and early death of the workpeople, especially those of tender and immature age, by whose labour and skill such great results have been achieved.

37. If the causes which produced the physical degeneracy, the high rate of mortality from pulmonary diseases, and the many other afflicting disorders and sources of bodily suffering above described, can be to any extent modified by legislation, we are entitled to expect, from the high character and known benevolence of the great body of employers whose signatures are attached to the above-mentioned memorial, that they will be as ready to co-operate in any practicable measure for that object as they have shown themselves to be in inviting the action of the Legislature to exempt children of a very early age from toil, and to secure them the elements of education.

38. The two great divisions of the pottery manufacture are— Divisions of the pottery manufacture.

The Potting Department, and
The Finishing Department.

39. The principal branches of the Potting Department are those of— The Potting Department.

The flat-pressers, and
The hollow-ware pressers.

40. It is in the first of these two branches that the greatest number of children and young persons are employed, and with the most injurious results.

41. The flat-pressers employ a large number of boys as—

Jigger-turners, and
Mould-runners.

42. Their number amounts to about 1,850. (Mr. Longe, p. 1.)

43. The hollow-ware pressers do not employ boys (p. 4). Boys are employed by the "dippers," a specially injurious employment (p. 5), as "handlers, and in a few other occupations, to the number of about 950, making the total number of boys employed about 2,800 (p. 1). Boys.

44. The youths employed in the pottery department are estimated to amount to about 3,500 more, making in all 6,300 boys and you ths employed. There is also a small number of girls employed in the pottery department, as assistants to throwers and turners (p. 2). Youths.

45. The Finishing Department consists of the operations of— Finishing department.

Printing,
Painting,
Gilding and burnishing.

46. Of the young girls employed by the printers, many of them as young as 8 years of age, Mr. Longe states that, Females.

The Pottery Manufacture.

"Next to the flat-pressers' boys, the condition of these children most demands consideration, on account of the very young age at which they are employed, their liability to be overworked, and the great heat of the rooms in which they work" (p. 5).

47. Girls of 9 or 10 years old are employed in painting cheap earthenware and ornaments, and medical evidence shows that they, as well as the older girls employed in the higher branches of the art, are liable in many manufactories, at times when overwork is required, "to be seriously injured by being kept for so many hours at this sedentary work "in crowded and badly ventilated rooms" (p. 5).

48. Young women and girls are also employed as gilders, burnishers, and scourers, the latter being the most pernicious branch of the manufacture" (Dr. Greenhow's Report, p. 110), and much requiring special precautions to guard against its ill effects.

49. Mr. Longe estimates the number of female children and young persons employed as paintresses and burnishers, paper-cutters, transferrers, and warehouse girls as about 4,700 (p. 2).

50. Here is, therefore, a body of about 11,000 children and young persons, all under 18 years of age, engaged in this great and successful branch of manufacture, of the productions of which the country is deservedly proud, and yet who are shown by irrefragable evidence, extending over a period of upwards of 20 years, to be employed under conditions which undermine their health and constitution, and encourage and propagate forms of disease most productive of human suffering, and most directly leading to physical degeneracy and decay.

Causes which produce injurious effects.

51. It is impossible to abstain from exhibiting the causes which have been again and again pointed out as producing these effects, and from earnestly considering whether it be practicable to apply any legislative remedy.

52. Of the total number of 11,000 children and young persons employed, 2,500 are employed as "jigger-turners" and "mould-runners." (Mr. Longe, p. 1, 2). The condition of these boys, Mr. Longe says, calls for consideration more than that of any other class of children (p. 2). They commence work very young; some between 6 and 7; others between 7 and 8, 8 and 9, or 9 and 10. Turning the jigger "is very hard "work for children to be engaged in during the whole day." But the process most injurious to the health of the boys is that of "mould-running," or carrying the ware on the moulds into the stove-rooms, and the moulds back to the man who is making the dish, plate, or saucer. Mr. Scriven's description of this process has been already noticed (p. ix). Mr. Longe describes it as follows:—

Hot stoves.

"Close at hand to the flat-pressers' bench is the 'stove.' These 'stoves' are little rooms, or rather ovens, about 13 feet square, and from 8 to 12 feet high, partitioned off from the shop. They are fitted inside with shelves, on which the moulds with the moist ware upon them are placed, in order that the ware may be dried sufficiently to be removed. In the centre is the stove, which I have often observed red hot. I tested the heat of three of these drying rooms or 'stoves.' In one the thermometer rose to 120°, in one to 130°, and in the third to 148°. As the potter forms the plate or saucer on the mould, the mould-runner runs off with it into the 'stove.' In proportion as the number of moulds with which the workman is supplied is limited, has the heat of the stove to be raised, in order that the moulds may be the more quickly dried, so as to be used again. Besides entering to place the moulds, the boy has also to enter to turn them, in order that the ware may not be bent in drying" (p. 3).

53. Of the effect of this employment upon the constitution of the boys, Mr. Longe states,

"It would seem that the injurious effects of their employment do not show themselves in youth, further than by impeding growth. When the mould-runner has become a young journeyman, the serious effects of many years' work in these shops and stoves become more palpable" (p. 4).

54. Dr. Greenhow, in commenting on the work of the mould-runners, thus describes the stoves and the effect they have, in conjunction with the dust raised in them, in adding "to the prevalence of pulmonary diseases among the potters."

Dust.

"Flat-pressers roll out a piece of dough, which, when of the proper thickness, they shape upon the mould. The material is used in a wet and ductile state, but bits of it get scattered over the floor, and rapidly drying are stirred up by the feet of the boys who are continually running about the workshop. The atmosphere is thus more or less impregnated with a fine dust, clearly observable only when it lodges on a flat surface, or is seen in the sunshine during a bright day. Articles made by flat-pressers are sent immediately to dry in a closet or stove heated by a furnace. These stoves are placed in the workshop, and frequently, especially among plate-makers, close to the operatives, so that the atmosphere in which they work is of an elevated temperature and very dry. The ware is carried into the stoves by boys who are very young, and are yet kept running to and fro all day, thereby filling the atmosphere of the shops with dust. The quantity of the dust varies according to the cleanliness of the place. Some workshops are swept daily, others only once a week, and of course the operatives employed in the latter are more exposed to inhale dust than those in the

former. The temperature of the workshops depends partly upon the sufficiency of the supply of moulds. When the men are well supplied with them it is not necessary to hasten the process of drying, and the stoves need not be so highly heated. When on the other hand there is a deficiency of moulds, the potters endeavour by way of compensation, to hasten the process of drying, in order that the moulds may again be soon ready for use. Dish makers are less exposed to heat and dust than plate and saucer makers, the operations of the former being of slower progress. The stoves, therefore, do not require to be so highly heated, and it is less essential to have them placed near the men. China flat-pressers are less exposed to heat, but quite as much exposed to inhale dust as those who work in the commoner material. China articles are partially dried on a shelf before being placed in the stove, which therefore requires neither to be so highly heated nor to be placed so near the workmen. Saucer makers create much dust in giving an edge to the saucers after they have been dried in the stove" (p. 107).

The Potte Manufactu

55. The hollow-ware pressers also suffer "from the injurious effects of the hot stove." Mr. Longe states (p. 4) that he has been informed that "the workmen belonging to "this branch suffer more from asthma and pulmonary diseases than the flat-pressers."

56. Of the effects of the stove on the hollow-ware pressers Dr. Greenhow also speaks.

"Hollow-ware pressers or 'squeezers' are exposed, though in a less degree, to the same influence as the flat-pressers, their work proceeds more slowly and it is not necessary to place the stove so close to the workman. Both flat and hollow-ware pressers stoop somewhat over their work. Throwers who shape their work upon a wheel sit at their employment with the wheel placed directly before them, over which they stoop very much, compressing the chest and interfering with free respiration. They are exposed to dust from the shaking up of débris from the floor, but not to the same high temperature as the flat-pressers. Each thrower has a 'jiggerer,' generally a female, to turn the wheel for him, who is exposed to the same influences as the potter. 'Sagger' makers, (*i.e.*, makers of 'the clay cases in which the ware is baked') are subject to great vicissitudes of temperature, the saggers being dried in a stove, heated to the temperature of 130° or upwards, into which the men carry them as they are finished."

57. There are, in the employ of the manufacturer, many youths who are taken as apprentices at the early age of 13 and 14 as flat-pressers and hollow-ware pressers. For the first two years they are paid weekly wages of 2*s.* to 3*s.* 6*d.* per week. After that they begin to work on the piece-work system, earning journeymen's wages.

"The practice," Mr. Longe says (p. 5), "of employing a great number of apprentices and taking them at the age of 13 and 14 is very common in a certain class of manufactories, a practice which is not only very prejudicial to the interests of the trade, but is probably another great cause to which the bad constitutions of the potters is to be attributed. This system, so advantageous to the employer, who requires quantity rather than quality of goods, tends directly to encourage the young potter greatly to overwork himself during the four or five years during which he is employed on the piecework system, but at low wages."

58. The consequences of overwork in the hot stoves at that early age may readily be anticipated.

59. The "stoves," therefore, or "stove-rooms," with the small workshops in connexion with them, are the principal sources of evil as regards the prevalence of pulmonary and other anolagous diseases which have been shown to afflict in so disproportionate a manner the large body of persons, young and old, who work in them. And in Mr. Longe's opinion, in strict conformity as it appears with that of Dr. Greenhow,

"Until some great change is made in the 'hot-stove' system, the most efficient mode of ventilation can only mitigate the evil which is undoubtedly one of the principal causes of injury to the health of the potter" (p. 4).

60. The question accordingly arises, are there any reasonable and practicable means of applying a remedy or remedies to this injurious action of the stoves, and to the state of the workshops in regard to their effects upon the health of the persons working in them.

Can any remedy be applied.

61. The pottery manufacture of Staffordshire is several centuries old. Common culinary articles of red, brown, and mottled pottery are believed to have been made there as early as A.D. 1500. (Ure's Dictionary of Arts and Manufactures, 1861, vol. 3. p. 485.) Glazed earthenware of a coarse description began to be made in 1670, and the manufacture was further improved about the year 1690 (*Ibid.*). It appears to have remained in nearly the same state until about the year 1750, when "Messrs. Thomas and John "Wedgwood erected the first brick-built manufactory roofed with tiles." (History of the Borough of Stoke-upon-Trent, by John Ward, London, 1843, p. 49.) In the year 1771 the late Mr. Josiah Wedgwood "completed his new manufactory, to which he gave "the name of Etruria" (*Ibid.*). To this gentleman is assigned the credit that by availing himself of the most able associates, and by combining the resources of mechanical and chemical science with those of the Fine Arts, he "converted a rude and inconsiderable "manufacture into an elegant art and an important branch of national commerce."*

History of pottery ma nufacture i Stafford- shire.

* Epitaph on late Mr. Josiah Wedgwood in the new parish church of Stoke-upon-Trent.

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62. In a petition to Parliament by the inhabitants of Stoke-upon-Trent in 1762, for making a turnpike road from Lawton to Stoke-upon-Trent, they stated that,

"In Burslem and its neighbourhood are near 150 separate potteries for making various kinds of stone and earthenware, which together give constant employment and support for 7,000 people; * * the roads being 'very narrow, deep, and foundrous,' in winter almost impassable even for pack-horses."—(Ward's Stoke-upon-Trent, p. 25.)

63. The completion of the Grand Trunk Canal in 1777 may be taken as "the period "from whence the commercial importance of the district may with propriety be dated." Mr. Josiah Wedgwood, in his evidence at the bar of both Houses of Parliament on a contemplated commercial arrangement with Ireland in 1785, stated that the estimated population "employed in or depending upon the manufacture was from 15,000 to 20,000 "persons."—(Ward's Stoke-upon-Trent, p. 42.)

"The operatives of all kinds now employed in the manufacture" are estimated by Mr. Longe to "amount to 29,000, namely, adults, 18,000; young persons (between 13 and 18) 6,500; children "(between 8 and 13), 4,500," (p. 1.)*

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64. The "stoves" and "stove-rooms" remain, in a large proportion of the works of the district, although improved from their most ancient construction, yet faulty and defective, and much as they are described to have been in the middle of the last century.

65. A writer upon the county of Stafford, Dr. Plott, who published his work in 1686, states that "a potter's oven was ordinarily about 8 feet high and 6 feet wide, of a round "coped form." Mr. Ward adds,

"It was, no doubt, sheltered by some kind of outwork or penthouse, to preserve the regularity of the heat, which, according to the testimonies of elderly people (in 1843), was, in ancient times, a wall of clods, but afterwards of broken 'saggers' (coarse earthenware vessels), roofed over with boughs and clods, and appropriately called a hovel. One such hovel, with thatched sheds as workshops attached, for the thrower, presser, handler (stouker), and other operatives, perhaps from five to eight in number, at a single work . . . a drying shed similar to that used at our tileries (or a few other buildings) . . . this cluster of mean buildings gives a specimen of the ancient potwork until near the middle of the last century, when a spirit of improvement and enterprise gradually arose, and some of the more successful and spirited of the manufacturers began to erect for themselves respectable houses, and improve and enlarge their old-fashioned laboratories."—(Ward, p. 46.)

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"Now (1843) our potworks exhibit a very altered character, and some of the larger manufactories present . . . an extensive and imposing group . . . comprising a quadrangle of lofty warehouses and workrooms, with intermediate ranges dividing the space into several areas, a cluster or row of towering hovels . . . and a lofty chimney," &c., &c.—(Ward, p. 52.)

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66. Speaking of the present state of the places of work, Mr. Longe states (p. 2) that—

"Most of the manufactories consist of buildings which have been erected at different times without any arrangement or uniformity. In nearly all the older buildings, which are still too common, the rooms are very small and low, particularly the potters' shops."

67. Of these "potters' shops" or stove-rooms and the stoves themselves, Mr. Elijah Jones, valuer, Hanley, whose experience has been very great in the district, both as a manufacturer and a valuer, states that—

"They have been endured too long; what numbers have they sent to an early grave! They are a disgrace to the district and the present age. I am quite sure that the drying processes might be effected without all this damage to the workpeople, and also at a saving of fuel to the employer" (p. 30).

68. The whole of Mr. E. Jones' evidence upon this branch of the subject is of considerable weight and importance. He states—

"I served an apprenticeship to a branch of the potting business; was also a manufacturer between 20 and 30 years, and since then for a number of years have been almost entirely engaged in valuations and agencies in connexion with the trade of this district; and from day to day the state of the working potters, men, women, and children, passes under my notice.

"The chief evils affecting the working potters, both children and adults, is the want of proper arrangements in the workshops and an effectual ventilation of the same. There is an unnecessary exposure to high temperatures in close drying stoves and dusty rooms.

"I see sometimes a number of human beings pent up together, breathing over and over the same polluted atmosphere, and unfortunately they themselves unconscious of the great damage it is doing them; thus are produced asthma and other diseases in early life, and the poor sufferers may even in some cases linger on a number of years, groaning under a burden of pain and sorrow.

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* According to the Parliamentary Census the population of the district of Stoke-upon-Trent, including Tunstall, Burslem, Hanley, Shelton, Fenton, Longton, and their respective outlying hamlets was

In 1801	23,626
In 1811	31,010
In 1821	40,408
In 1831	51,968
In 1838	63,000

The pottery towns contain, according to the census of 1861, a population of 101,302.

"The present race of working potters is, in my judgment, much deteriorated and very short-lived, and were it not for frequent importations from country districts, these effects would be still more visible, and the race, if not thus recruited, would become extinct. The Potte Manufactu

"Both the men and women seem quite afraid of the atmosphere, and I often see cases where ventilation has to some extent been provided, but vents provided for the escape of foul air have been stopped up from a mistaken idea of the workmen themselves.

"I often see a father of a family, a plate or saucer maker, have with him several of his children, girls as well as boys, from 8 to 10 years old, running in and out of the burning stoves until the sweat literally pours down their bodies, and the poor things become emaciated and enfeebled for life.

"These stoves have been endured too long; what numbers they have sent to an early grave! They are a disgrace to the district and the present age. I am quite sure the drying processes might be effected without all this damage to the workpeople, and also at a saving as to fuel to the employer.

"I would observe here that the need of ventilation is not confined to the potters' workshops, but in the finishing departments, where large numbers of men and women and boys and girls are employed, such as enamellers, gilders, burnishers printers, and transferrers, there is the same defect" (pp. 30–31).

69. J. Bilton, manager of the potting department of Mr. W. T. Copeland's works, states (p. 10) that he thinks—

"The heat of the stoves the great evil of the trade," and that "there is now a difficulty in getting boys for this work," which he attributes partly "to a knowledge on the part of the parents that the work is unhealthy."

70. J. Davenport, manager of the works of Messrs. W. Adams and Sons, states (p. 11) that—

"The mould-running (running into the stoves with the moulds) is the worst work the children have to do. Very few parents would send their children to the work if they could help it."

71. Thomas Forester, manager to the firm of Messrs. Lockett and Cooper, china and earthenware manufacturers, Hanley, states that it is in the power of the manufacturers

"To introduce improvements as to the stoves and the ventilation of the workshops, which would be of enormous benefit to the operatives" (p. 15).

72. The evidence of Mr. Boothroyd, Mayor of Hanley, as to the "faulty construction, "imperfect ventilation, and over-crowding of the workshops," has been already adverted to, and there is much other testimony throughout the evidence collected by Mr. Longe to the same effect, the general purport of it being that the stoves and stove-rooms or potters' workshops, and the small and ill-ventilated rooms in the finishing department, in a very large proportion of the manufactories in the district, are the principal causes of the great and undue prevalence of pulmonary diseases, and of the general ill-health, stunted stature, and premature death of those engaged in this branch of manufacture.

73. Precisely to the same effect is the opinion of Dr. Greenhow, as recorded in his report, after careful observation of the state of the places of work in the whole district. He states, with respect to the potters' department (p. 112), that—

"The evils incidental to these branches of the potter's calling might unquestionably be mitigated by increased cleanliness and improved ventilation, and by the adoption of such arrangements as would tend to moderate the heat of the workshops." Injurious effect of wan of ventilatio in the finish ing depart ment.

74. And, with respect to the need of improved arrangements in the finishing department, he states (p. 113) that—

"The numerous persons employed in the various decorative departments of the earthenware manufacture suffer from no causes of ill-health so intimately connected with the nature of their work as those to which potters are exposed. The one cause of pulmonary disease to which the decorators are more particularly exposed is the close, ill-ventilated, and often over-heated state of their workrooms. . . Notwithstanding the absence of direct evidence, there can be no doubt that the condition of many of the rooms in which the china decorators work are such as are likely to injure health, and especially to produce pulmonary disease. There could be no great difficulty in effectually remedying the evils of these workshops. A greater amount of space and freer ventilation (care being of course taken to exclude draughts) would completely remove the chief causes of ill-health, without at all interfering with the efficiency of the workers."

75. It is especially noticeable that while in the older and smaller establishments most of the evils of construction and arrangement exist together, in several of the more modern, the arrangements of which were good in some respects, there are nevertheless marked defects and deficiencies. This fact has been commented upon both by Dr. Greenhow and by Mr. Longe; the former states (p. 112) that— In old and small pot teries most of the evils exist to gether.

"The size, height, and arrangement of the workshops, and the completeness of the means adopted for ventilation and cleanliness in the several departments, vary much in different potteries. Some establishments are very inferior to others in all these respects, and several which possessed excellent arrangements in some respects were deficient in others. It was stated that the workshops are now kept at a lower temperature than formerly, a change which has proved highly beneficial to the workmen; and above all by more effectually removing the débris from the floor, which is certainly a In some of the more modern some of the ar rangements good, some defective.

The Pottery Manufacture.

principal cause of the dust suspended in the atmosphere in many pottery workshops. In some establishments the floors are swept daily, generally in the morning, a practice open to this objection, that the dust raised in the process has not time to settle again before the people commence work ; but in most of the inferior potteries the floors are not swept oftener than once a week, probably seldom so often."

76. And in another passage (p. 109) Dr. Greenhow thus describes the apartments in which decorators work, in the smaller and in the larger establishments (p. 109) :—

" Under this general term (of decorators) are here comprised the persons employed in engraving and printing designs to be afterwards transferred on to the ware, besides painters, gilders, and burnishers. All these branches of the manufacture are of a sedentary kind, and are frequently carried on in low, ill-ventilated, and overcrowded apartments. These places are often overheated, either in consequence of the large fires kept up by the operatives, or because, in certain processes, an oven is required, in order to dry the articles when they have received the design," &c. . . . .

" In the larger establishments there are often found a great many persons collected in the work-rooms of these departments, more especially in those in which women or girls are exclusively employed, and this overcrowding, combined with imperfect ventilation, sometimes renders such rooms very unwholesome. Even where, as in the better class of potteries, means of ventilation have been provided, the operatives refuse to make use of them, or actually close them up in order to exclude currents of air, to which pottery operatives, like most others, have a great dislike. This objection might probably be obviated by the adoption of some improved method of ventilation, which should provide for a constant renewal of air in the apartment without sensible draught."

77. Mr. Longe states (p. 4)—

Instances and modes of improvement.

" That several manufacturers have lately been attempting to remedy the evil of the hot stove system by supplying their workmen with a larger number of moulds and increasing the capacity of the stove."

78. Mr. Thomas Blair, town surveyor, Longton, speaking of Longton alone, in which he had resided 20 years, says (p. 28) that—

" In all cases where new manufactories are built great attention is paid to the convenience of the workpeople and to the ventilation of the shops. I know of seven new manufactories which have been built on an improved system. Several of those also which have been built within the last seven or eight years are also good. I think that, generally speaking, our manufacturers take a good deal of interest in the management of their works."

Remedies, physical and moral.

79. *Remedies.*—It appears to us from all that has been already adduced, and from the remaining portions of the evidence to which we shall proceed to call attention, that, with a view to removing the prevalent causes of disease, and the other sources of physical suffering to which the children and young persons, and the workpeople generally, are exposed, the following measures are necessary :—

Remedies having in view the Physical Improvement of the Children and Young Persons employed.

1. Improvements in the ventilation and a reduction of the temperature in the potters' stove-rooms (p. xvii.)
2. Improved ventilation in the work-rooms of the finishing department (p. xx.)
3. Other specific regulations for the protection of health in certain departments of the manufacture, in accordance with the precedent of the Factory Act (p. xxv.)
4. The securing children and young persons against the prevalent habit of working *overtime*, according to the provisions of the above Act (p. xxvii.)
5. The securing for the young regularity of meal times, according to the provisions of the above Act (p. xxix.)

80. When we have dealt with the above topics, we purpose then to discuss the subjects suggested by the moral aspects of the question, referred to in the memorial of the employers, and we shall thereupon feel called upon to submit as,—

Remedies having in view the Moral Improvement of the Children and Young Persons employed.

6. The placing the potteries under the Factory Act; with especial reference herein to the limitations of age and hours of work, school attendance, and the other regulations of the half-time system (p. xxix.)
7. Further security for education by requiring a certificate of a certain amount thereof on attaining the age of 13 (p. xlvi.)

81. We proceed to deal with each of these seven subjects in the above order.

Physical Remedies.

1. *Improved Ventilation, &c. of the Potters' Stove Rooms.*—This may be effected by one or more of the following means:—

(*a.*) By an improved form of stove.

82. On this point Mr. Longe says (p. 4), an effectual mode of removing the evil would be,—

"The substitution of some form of oven or stove which would neither require the entrance of the boy or workman, nor diffuse so much heat through the workshop."

83. Accordingly, it is satisfactory to be able to state, as pointed out above by Mr. Longe and Mr. Thomas Blair, that some manufacturers have taken steps to improve the hot stoves and the rooms adjoining them, with very good results to the health and comfort of those working in them.

84. Mr. Pearson, at his manufactory at Cobridge, introduced recently an oven on this principle, but we are informed it did not carry out the full design of the inventor, Mr. Tunnicliffe, of Burslem, and was not, therefore, entirely satisfactory.

85. The following are stated by Mr. Tunnicliffe, and by the manufacturer, Mr. E. Walley, of Burslem, to be the advantages possessed by their improved "Potters' "Drying Stove."

1st. The mould boys and men are protected from intense heat, and sudden changes of temperature, and the labour of the boys diminished.

2nd. It economizes room about 75 per cent., as an ordinary stove for two men covers a space of 200 superficial feet; this stove, for the same number of men, can be erected in 50 superficial feet.

3rd. About one-half of the fuel is required, from the fact that we have less than half the space (as compared with the old system) to heat, and the warmth is confined to the stove alone.

4th. In order to prevent injury to the ware, from dust, we have a contrivance underneath the pot, which draws up the smoke flue all dust arising from the ashes; and any connexion with the interior of the stove is entirely excluded.

5th. Fewer moulds will be required, as the drying process is more rapid; these moulds will also last longer, from the fact that they are always kept dry, without being subject to more than ordinary heat; it is not for us to say what this last-named advantage will save, as the expense of mould-making is a recognized fact in all manufactories, and better understood by practical potters than ourselves.

6th. By the moulds being placed flat, and the heat diffused equally all round, it will be evident this method will produce straighter goods, and much less loss from the cracking frequently caused by unequal drying.

86. Again, in the manufactory of Messrs. Buller and Mugford, Hanley, where "a "great number of very little children, chiefly girls, are employed," Mr. Longe states (p. 6),—

"The 'stilts'" (little pieces of clay of various shapes on which the ware is placed preparatory to its being fired), "are dried by means of an oven, which neither requires the entrance of the children, nor does it heat the workshop. The dies with the moist clay pressed in them are laid upon an iron rack or horse, which is rendered easily moveable by means of wheels and rails. As soon as the rack is loaded, the door of the oven is opened, and the rack is pushed in by the children, and left until the clay is sufficiently dry to be removed from the dies. Although, perhaps, an oven or "stove" of the same size and form as this could not be used for drying ware, it suggests a principle on which an oven might be made for the potter's use, which would effectually remedy the evil which I have already noticed."

87. Mr. E. Jones has also very recently transmitted to us from Mr. W. Boulton, Moorland Road Foundry, Burslem, a plan and description of a potter's drying stove just fixed by him at Messrs. Pinder, Bourne, and Co.'s, Burslem, the advantages of which are described in a subsequent paragraph.

88. We do not refer to these improved stoves with a view to recommend that the adoption of some new form of stove should in any case be made imperative; but we believe that if the serious attention of the manufacturers of the district were to be drawn,—first, to the defective construction of the present stoves, and the injury they inflict on the health of the young who work in them, and next to these and other modes of obviating those defects,—by a competent and independent authority, under the conditions and subject to the limitations which we shall herein-after point out (p. xxiv.), it would not be long before great improvements would be effected. Nor could the cost of effecting such improvements present any material obstacle.

ıe Pottery ınufacture.

89. The size of these "stoves," or "stove-rooms," does not appear to differ much at present from what they were in the earliest period of the manufacture.

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90. Mr. Longe thus describes them (p. 3),—

"These 'stoves' are little rooms, or rather ovens, about 13 feet square, and from 8 to 12 feet high, partitioned off from the shop. They are fitted inside with shelves, on which the moulds with the moist ware upon them are placed, in order that the ware may be dried sufficiently to be removed.

91. The cost of improving such small buildings as these may be gathered from the following information upon this point with which Mr. Elijah Jones, who, both as a manufacturer and a valuer, is well acquainted with the district, has lately furnished us. He states :—

"I have referred to several of my valuation books, and find the value of the drying stoves, as now in use, very variable. Twelve which I took out are valued at the several amounts of 5*l.* 5*s.* 8*d.*, 4*l.* 15*s.* 3*d.*, 6*l.* 9*s.* 6*d.*, 6*l.* 6*s.* 2*d.*, 7*l.* 14*s.* 10*d.*, 3*l.* 14*s.* 10*d.*, 9*l.* 3*s.* 8*d.*, 8*l.* 2*s.* 11*d.*, 8*l.* 5*s.* 10*d.*, 10*l.* 10*s.* 8*d.*, 10*l.* 2*s.* 2*d.*, 8*l.* 8*s.* 0*d.* This includes the outer brick or boarding, as may be, and the inner shelving on supports, and the iron fire pot and pipe, hearth, &c., &c. These amounts indicate the then condition of the stoves, but they would cost more to build, say one-quarter or one-third.

"Sometimes a portion of the walling forming the stove belongs to the freehold, and of course is not valued. It is the usage here that although these stoves belong to the owners of the factory, yet on a tenant going in they are valued along with all the other fixtures, an amount attained, and this amount the tenant has to leave at expiration of his term, so that he may make changes and improvements during his term in these fixtures to suit his trade or convenience, so that he leaves the full value at last.

"The cost of taking down old stoves would not be much, but I fear the materials of which they are composed would not thereafter be of much service. Portions might be used, such as the shelving, &c.

New stove t Messrs. Pinder and Bourne's.

"In reference to the new potters' drying stove recently erected by Mr. Boulton at Messrs. Pinder, Bourne, and Co'.s Works, Burslem, plans of which I have forwarded to you (see plan and description, Appendix, p. 336), my opinion is that it is an improvement upon the one which gained my prize of 10*l.*, and also upon the one put up at Mr. Pearson's. It has an alteration which makes it more acceptable to the manufacturer as very much economizing the cost of heating, and better for the boys and workmen, because they are both saved from exposure to heat. The steam is altogether shut out of the work-rooms. I think it a valuable contrivance, and am sanguine of its success in the district.

"I believe that the cost of a new building of this kind, consisting of four rooms, with the stove, hot-air pipes, valves, and the lining and stays, is about 30*l.* This construction has several other advantages. Each room will hold many more moulds than the old structures, relatively to the size. The mould will endure much longer, not being exposed to the direct action of the heat. The flat position of the moulds and the equal diffusion of the heat throughout the room will cause the ware to dry more equally, and therefore be less liable to become crooked in drying. The shelves can also be filled with greater facility, and consequently in less time than according to the old mode now in use.

"I feel quite certain that in all stoves hereafter to be constructed, plans might be adopted which would secure the comfort and health of the work-people. I do not mean that such plans should be made compulsory, or that Government should so far interfere as to oblige manufacturers to pull down old buildings of a construction injurious to the health of the work-people, and put up new ones adapted to new and improved modes of drying. This would, I think, be very objectionable and impracticable. But going about, as I have so long done, amongst the potters, I constantly see modes of improving the stoves and workshops as to ventilation, &c., which, had I the power of the law, I would insist upon being done at once, because the expense would be light, and the good gained considerable.

"The amount of ignorance and prejudice to be overcome is so great that I am sure some compulsory power will have to be applied, and some voice must speak with authority in this matter.

"As a proof of the amount of ignorance and prejudice to be overcome, I may mention that when I visited the stove at Mr. Pearson's the other day, the room in which the men and boys were at work was full of damp hot air, every window and inlet for air closed, and the damp air streaming from the open apertures of the stove. I was almost suffocated on entering. On examination I found that the valve which is contrived to let off the steam as it is generated the man had kept shut, for the purpose, as he said, of getting more heat. I asked him to open the valve and also one of the windows for a few minutes, and when I returned in about 20 minutes the room was all that could be desired."

92. Since giving his evidence to Mr. Longe, Mr. E. Jones has visited several factories, and has forwarded to us the result of his observations, which clearly confirm his opinion of the need of some legislative interference. He states,—

Instances of imperfect improvements.

"I have visited several new factories and new additions to factories, and generally, as far as the drying stoves are concerned, and any provision for the egress of steam or proper ventilation, I see very little improvement.

"In No. 1, a new factory, and a most commodious one in other respects, I found a terrible broiling temperature in the stoves, and no vents for steam, and little or very insufficient ventilation. The generated steam comes out of the stoves to the room where the men and boys work, to be breathed by them.

"At No. 2, another new factory which I visited, the potters' workshops are fully as bad as any of those of the old establishments as to ventilation and comfort and health of the men.

"No. 3 is a new factory. The flat makers' rooms are in the basement of the buildings, and more unwholesome, unhealthy buildings there cannot be.

"No. 4 thinks much of his stoves in a new range because they are lofty, but although there are a few air bricks in the outer wall, there is no provision for getting the steam, dust, and heat out of the stove, without it coming into the workshop.

"No. 5 has a new range of building (erected perhaps 3 or 4 years), and I found the best system of ventilation I have seen in connexion with the old mode. There is a provision of an air chamber between the ceiling of the drying stove and the room over it, into which the generated steam, dust, and heat are to some extent carried and taken through an outer wall into the atmosphere. Any one will see and hear (from the men) how even this slight improvement benefits the workmen."

Want of room no difficulty.

93. A difficulty in the way of one mode of improvement appears in some cases to be the want of room for the enlargement of the premises within the present area. (Mr. Cooper, p. 15.)

94. Such a difficulty would not arise where stoves of one of the new modes of construction were adopted, inasmuch as it has been shown that they take up less room than the old ones. There appears, therefore, no valid reason why the interposition of the Legislature should not be available, in the manner herein-after pointed out (p. xxiv.), to mitigate, if it cannot entirely remove, a source of evil which has been demonstrated to be of a nature and an extent, not only to justify, but imperatively to call for its action as a measure of humanity to a large body of sufferers.

95. Improved ventilation may also be effected,

(*b.*) By the alternative of having a larger supply of moulds.

By alternative of a larger supply of moulds.

96. It is abundantly clear that an alternative, not only comparatively inexpensive, but attended with economical advantages, and already adopted by some manufacturers, is within the reach of all who may think fit to adopt it in preference to any change in the principle of the present stove. This alternative is the providing an increased number of moulds.

97. Mr. Longe states (p. 4),—

"In a few cases I have found workmen supplied with such a number of moulds (for the enlarged stoves) as to enable them to do their day's work without heating the stove at all during working hours."

Economy resulting from.

98. The economy to the employer and benefit to the men and boys resulting from this kind of improvement is noticed by several witnesses. (Cup makers and plate makers, p. 14. Thomas Forester, p. 15; Mr. Cooper, p. 15.)

99. In this case the old stove is slightly altered, to enable it to hold more moulds. The moulds of the plate maker are about 10 inches long and about $1\frac{1}{2}$ inches deep. When working with the hot stove, he uses during his day's work the number in his possession over and over again, as the hot stove dries them quickly. With the hot stove he "can do his day's work with 12 or 14 dozen moulds" (F. Hadden, p. 14), or with from 144 to 168 moulds. If no heat was used he would want 40 dozen (that being his average make of plates per day, Mr. Longe, p. 4). Working therefore under the cold stove instead of the hot stove system, he would require either 26 or 28 dozen more moulds.

100. These moulds are of plaster of Paris, and of the dimensions above stated; their cost, we are informed by Mr. E. Jones, is as follows:—

	s.	*d.*
The material and cost of making 12 flat plate moulds of all ordinary patterns, is	2	3
Do. of 12 twiffler moulds	1	11
Do. of 12 saucers, London (or tea) size	1	5
Do. of 12 outside cups, London (or tea) size	1	$3\frac{1}{2}$
Do. of 12 inside cups, London (or tea) size	2	4

101. Consequently the cost to the manufacturer of the additional quantity would vary from 34*s.* 4*d.* to 63*s.* shillings per stove.

102. It might be necessary, however, for the manufacturer to supply either more shelves in the stove room to hold these additional moulds, or possibly to add to some small extent to the room itself. The small amount of this additional accommodation may

The Pottery Manufacture.

be estimated by the fact that the moulds being 10 inches in diameter, 336 lineal feet of shelves in one case and 312 in the other would be more than sufficient.

103. To be set against this expenditure are two sources of saving:—1st, a less expenditure of coal in heating the stove; 2ndly, a less rapid wearing out of the moulds. (Mr. Longe, p. 4.)

104. The boys and youths employed as assistants to the plate and saucer makers are those most exposed to the great heat of the stoves (Dr. Greenhow, p. 44), and bear a large proportion to the whole number employed in the trade (pp. 1, 2, 4).

105. Dish-makers and china flat-pressers are "less exposed to heat" (Dr. Greenhow, p. 44). Consequently the number of stoves in the district requiring an improved system of working, either by alteration of plan, or an additional number of moulds, is confined to those of the earthenware plate and saucer makers.

Average number of potters' stoves per manufacturer.

106. Mr. E. Jones has obligingly furnished us with the following "Tabulated Abstract," founded on recent personal inquiry, exhibiting the number of potters' stoves in seven manufactories of the district, the number employed in connexion with the stoves, and the numbers employed in the finishing and other departments.

107. Tabulated Abstract.

Total Numbers employed.						Number of Potters' Stoves.	Numbers employed in Potters' Stoves.					Numbers employed in the Finishing Department.					Employed in other Departments.					Total Number employed.
No.	Men.	Women.	Boys.	Girls.	Total.		Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	
1	55	35	24	12	126	6	5	—	6	—	11	6	18	—	10	34	44	17	18	2	81	126
2	112	78	93	19	302	30	37	—	64	—	101	16	59	—	18	93	59	19	29	1	108	302
3	44	60	26	24	154	12 China.	11	—	10	—	21	10	45	4	23	82	23	15	12	1	51	154
4	94	49	75	13	231	17	24	—	46	—	70	4	18	—	10	32	66	31	29	3	129	231
5	128	77	66	46	317	15	16	—	23	—	39	23	56	4	45	128	89	21	39	1	150	317
6	136	43	116	20	315	22	36	—	75	—	111	2	13	—	3	18	98	30	41	17	186	315
7	45	27	25	9	106	7	7	—	12	—	19	6	16	—	6	28	32	11	13	3	59	106
Totals	614	369	425	143	1,551	109																1,551

7)109

Average number of potters' stoves in 7 manufactories - - = 15·5

108. Mr. Jones informs us that, excluding a few unusually large manufactories and few very small, the above seven may be taken to furnish a fair average of the district.

109. Accordingly it appears that 15·5, or in round numbers 16, are the average number of stoves per manufacturer in the district, subject to the above exceptions.

Average cost of improvements.

110. This statement affords the means of arriving at an approximation to the demand which would be made upon the capital of the district, in the extreme case of each manufacturer deciding upon substituting a new form of stove for the old ones now in use.

111. Under the supposition of the one lately erected by Mr. Boulton being adopted, (which does not differ materially in relative cost from that of Mr. Walley,)—as Mr. Boulton's contains four compartments or stove-rooms in one building, four separate buildings would supply the average number required.

112. It has been seen that Mr. E. Jones's estimate for each building complete is 30*l.* Four times 30*l.*, or 120*l.*, would therefore be the cost of an entire set of new stove-rooms, per manufacturer, according to the assumed average in the district; this cost being also subject to the reduction arising from the sources of economy mentioned above by Mr. Jones. In the case of No. 2 above, having 30 stoves, the cost would be 210*l.*

113. Again, in the event of the alternative being adopted of more moulds, as above described, the cost per manufacturer according to the average would be from 30*l.* to 50*l.*; this cost, again, being subject to the deduction arising from the economy produced by the use of the larger number, in the less rapid wearing out of the moulds.

114. It is evident, therefore, that the burden thrown upon the capital of the district, whether by the building of new stove-rooms, or improving the ventilation or mode of use of the old, could not be pleaded against the propriety of such a limited and restricted mode of legislative interference as we are about to point out (p. xxiv), with a view to the gradual removal of causes which have so long produced a large amount of disease and suffering throughout the entire district.

2. *Improved Ventilation of Workrooms in the Finishing Department.*—Of the two descriptions of buildings requiring improvement—the stove-rooms and the workrooms of the finishing department—the latter would in all probability be very easily dealt with.

The Potter Manufactur

115. Improved methods of ventilation have of late years become a subject with which architects, builders, and men of science have made themselves familiar. It is not therefore to be anticipated that any practical difficulties of any moment could be experienced in applying well-known principles and methods of "providing for a constant renewal of air "in an apartment, without sensible draught" to the workrooms of the finishing department, which are of as simple and ordinary construction as those of the potting department. That they equally require the interposition of the Legislature is clearly proved by the evidence already adduced; to which we may add a further illustrative instance which came under the notice of Mr. E. Jones in the course of his more recent inquiries.

"No. 3 is a china factory built upon an excellent principle, rooms 12 feet high, but the making of china does not require the heat in drying that earthenware potters think needful; yet even here the finishing rooms were closed up, and there was a sad want of ventilation. Indeed, it must not be thought that improvement in potters' stoves is all that is required. Some of the finishing rooms, where large numbers of boys and girls are employed, are shamefully neglected as to ventilation."

Number of manufactories to which legislation if adopted would appl

116. We proceed to consider the number of manufactories in respect to which it might be necessary to require improved ventilation and other sanitary arrangements; the precedents for legislative interference on the principle proposed; and, finally, the manner in which such interference might be carried into effect with due regard to the interests of the persons concerned.

117. The number of manufactories to be dealt with may be pretty accurately inferred from the following estimates of the total number in the district in 1841 and 1862, and the relative proportion of those which are large, and where the workshops are well constructed, well arranged and well ventilated, to those which would require improved arrangements in the "stove rooms" and other buildings of the pottery department, or improved methods of ventilation in the workrooms of the finishing department.

118. Mr. Scriven thus describes the three classes of pottery works, into which he divided them, as they appeared to him in the course of his inquiry in 1841 (Report, C. 3):—

"In the first class I have inserted all the manufactories of most recent structure, many of them built upon scales of great magnitude, in some instances of beauty; among these may be mentioned the Messrs. Minton and Boyle's, Alcock's, and John Ridgeway's; they contain large, well ventilated, light, airy, commodious rooms, in all respects adapted to the nature of the processes carried on in them.

"The second class form by far the most numerous, and are of greater or less extent, having from 50 to 800 hands engaged; most of them have been erected many years, and, as the trade has increased, so the rooms appear to have increased in a corresponding ratio,—some here and there, upon, around, and about the first premises, so that there is neither order, regularity, nor proportion. The consequence of this is, that men, women, and children are to be seen passing in and out, to and fro. to their respective departments at all hours of the day, no matter what the weather, warm, cold, wet, or dry; the rooms, with very few exceptions, are either low, damp, close, small, dark, hot, dirty, ill ventilated, or unwholesome, or have all these disadvantages.

"The third class, which include the Egyptian ware and figure manufactories, are even still worse, but the children to be found in them are very few, and in many of them there are none."

119. Mr. Scriven states that he had visited 173 pottery works, but he included in his classified list only 126 (C. 1–2).

120. Of these he places—

In the 1st class - -	24
In the 2nd class - -	64
In the 3rd class - -	38
	126

121. Mr. Longe gives "the approximate number of earthenware and china manufac- "tories in the district" at present as 180 (p. 1). Of these the number of those which would now be placed in the first class has increased since 1841, as has been shown by the evidence,—(Mr. T. Blair, p. 28, Mr. T. Goddard, p. 22, Mr. Boothroyd, p. 23, Mr. Ashwell, p. 24). But the whole current of the evidence collected by Mr. Longe, bearing upon this point, as well as the results of the inquiries of Dr. Greenhow in 1860, prove conclusively that "the old buildings," which according to Mr. Longe, "are still "too common," "particularly the potters' shops" (p. 2), remain very defective in construction and ventilation (Mr. Boothroyd, p. 23); and that "the evils to which the children "are subjected in the manufactories are not materially diminished during the last 20 "years." (J. B. Davis, M.D., p. 23, H. Bentley, manager, Messrs. Herbert, Minton, and Co.'s works, p. 10, J. Bilton, manager, Messrs. Copeland's works, p. 10.)

The Pottery Manufacture.

122. Considering, therefore, that out of the total number of potteries in this district a certain large proportion would not be found to require much, if any, improvements in ventilation, or in their modes of reducing the temperature, with a view to the health of the children and young persons and others working in them, and that in the remainder those buildings which would be found most defective in that respect, namely, the stoves and the potters' workshops adjoining them, are, according to the dimensions above given (p. xviii), and the evidence relating to them, of an inconsiderable size and of inexpensive construction, it may reasonably be anticipated that no serious or undue burden would be imposed upon the trade, were Parliament to require improvements to be effected within a given time, and under certain safeguards for the protection of the interests of the owners or occupiers, of a nature to mitigate or remove the evils complained of.

Precedents for legislative interference.

123. The precedents for such interference on the part of the Legislature, on sanitary grounds, with especial view to the protection of the young in some cases, and for their protection together with that of the rest of the persons working with them in others, are sufficiently numerous to remove all doubt as to the willingness of Parliament to enforce improvements of construction or arrangement, and to prescribe adequate provisions for ventilation and cleanliness, where such interference has been shown to be required for the preservation of life or health.

124. The first Factory Act (42 Geo. 3. c. 73.), entitled "The Factory Health and Morals Act, 1802," and still unrepealed, but inoperative on account of insufficient directions for carrying it out (Report by Mr. Saunders, Inspector of Factories, May 1848, p. 32) enacts, s. 2,—

"That due care and attention shall be paid by the master or mistress of such mills and factories, to provide a sufficient number of windows and openings in such rooms or apartments, to insure a proper supply of fresh air in and through the same."

125. The "Factories Regulation Act, 1844," 7 & 8 Vict. c. 15., requires that,—

"All inside walls, ceilings, or tops of rooms, whether plastered or not, and all passages or staircases which have not been painted with oil once within seven years, must be limewashed once every fourteen months. All inside walls, ceilings, or tops of rooms which are painted with oil, must be washed with hot water and soap once every fourteen months" (s. 18).

126. By ss. 21 and 22 it requires that,—

"Every fly-wheel connected with the steam-engine or water-wheel whether in the engine house or not, and every part of a steam-engine and water-wheel, and every hoist or teagle, and every shaft, and every wheel, drum, or pulley, by which the motion of the first moving power is communicated to any machine, must be securely fenced; and every wheel-race must be fenced close to the edge, and the said protection to each part must not be removed while the parts required to be fenced are in motion."

127. The obligations imposed by the Legislature upon the owners and occupiers of coal mines, with a view to the protection of the health and the lives of those employed in them, are of a more stringent and comprehensive kind than those imposed in the case of factories, and are such as, under certain circumstances, may involve a considerable outlay.

128. By the first "Inspection of Coal Mines Act" (13 & 14 Vict. c. 100., 1850) a power of entry was given to any inspector appointed by the Secretary of State—

"To enter, inspect, and examine any coal mine or colliery, and the works and machinery belonging thereto, . . . and to make inquiry into and touching the state and condition of such coal mine or colliery, and the mode of lighting and using lights in the same, and into all matters and things connected with and relating to the safety of the persons employed in and about the same, and if such inspector find any part of such coal mine or colliery, works or machinery, or any air-courses, air-doors, waterways, drains, pits, levels, shafts, or other matter or thing in or connected with such coal mine or colliery, or the mode of lighting or using lights in the same, to be *dangerous* or *defective* so as in his opinion *to threaten or tend to the bodily injury* of any person employed in or about such coal mine or colliery, such inspector shall thereupon summon before him the manager or principal colliery viewer or agent having charge of the said mine or colliery, in order to his being heard upon the matter giving rise to such finding as aforesaid, and if such manager, &c., does not attend after reasonable notice, or having attended shall fail to satisfy such inspector, then such inspector shall serve notice in writing of the particular grounds on which he shall be of opinion that the said colliery or coal mine is dangerous or defective, on the owner or agent of such mine, and shall also report the same to one of Her Majesty's Principal Secretaries of State" (s. 2).

129. The above statute was repealed by the 18 & 19 Vict. c. 108. (1855), which prescribed definitely certain precautions to be taken by the owners or occupiers of each coal mine, for health and safety, by establishing certain general rules to be acted upon in all coal mines, and by increasing and defining the powers of the inspectors in relation to certain special rules to be applied to individual collieries, and providing a mode of appeal from their decisions.

130. The general rules to be observed in every coal mine and colliery by the owner or agent thereof, are,— 1, adequate amount of ventilation; 2, fencing disused shafts;

3, fencing working and pumping shafts; 4, working and pumping shafts in certain strata to be securely lined. The Pottery Manufacture.

131. By section 5 the special rules are first to be framed by the owner himself, and transmitted to the Secretary of State. If not objected to within 40 days they are to be considered as established. But if the Secretary of State shall be of opinion "that "such rules or any of them do not sufficiently provide for the safety of the persons "employed," he may within 40 days propose any alterations or additions to them. The owner is allowed 20 days to object to them, when, if not objected to, they are to be considered established.

132. But if the owner should object to the alterations or additions proposed by the Secretary of State, he must, within seven days after he has so objected, nominate three or more practical mining engineers or other disinterested persons, of whom the Secretary of State may appoint one or more, to determine the matter in difference; or two mining engineers may be appointed, one by the owner and one by the Secretary of State, and those two shall, before they proceed to determine the matters in difference, appoint a third person as umpire, and the determination of such persons and the umpire shall be final:—

"Provided also, that the amount of payment to be made to all such persons, and to such umpire so nominated and appointed as aforesaid, shall be fixed by such Secretary of State, and paid in equal moieties by such owner and the Commissioners of Her Majesty's Treasury, who are hereby authorized to make such payment accordingly."

133. The provisions of the above Act have been still further extended by the Act now in force (Mines Regulation and Inspection Act, 23 & 24 Vict. c. 151., August 1860). It includes ironstone mines; and the clause relating to ventilation (sect. x.) is made more comprehensive and definite. It requires that—

"An adequate amount of ventilation shall be constantly produced in all coal mines or collieries and ironstone mines to dilute and render harmless noxious gases to such an extent that the working places of the pits, levels, and workings of every such colliery and mine, and the travelling roads to and from such working places, shall, under ordinary circumstances, be in a fit state for working and passing therein."

134. It also enlarges the scope of several of the other general rules, and extends their number from seven to 15. It extends the periods for giving notice, mentioned above, from seven to 14 days, and from 40 days to three months; supplies some omissions in regard to the appointment of arbitrators, and directs that where "two mining engineers or "other competent persons" are to be appointed arbitrators, one is to be named by the owner and the other by the inspector of the district (sect. xiii.)

135. Various other precedents may be referred to showing the manner and extent to which Parliament has thought proper to cause a due amount of ventilation, and means of cleanliness and decency, to be provided, not only with a view to the preservation of the public health, by regulations as to buildings and other matters, but with a view to the health and comfort of people working together in different trades and manufactures.

136. As instances of these the following may be cited:—

137. By the Nuisances Removal and Diseases Prevention Act (18 & 19 Vict. c. 121.) s. 29., whenever—

"The medical officer of health, if there be one, or if none, whenever two qualified medical practitioners shall certify to the local authority that any house is so overcrowded as to be dangerous or prejudicial to the health of the inhabitants, and the inhabitants shall consist of more than one family, the local authority shall cause proceedings to be taken before the justices to abate such overcrowding."

138. The Police and Improvement (Scotland) Act (13 & 14 Vict. c. 33.) s. 159. extends those powers to the "whitewashing, cleansing, and purifying any houses or building "or any part thereof." The Metropolis Local Management Act (18 & 19 Vict. c. 120.) s. 103. requires certain effectual means of ventilation to be provided in all underground rooms or cellars occupied as dwellings; and by s. 132 directs the Medical Officers of Health in cases where they become acquainted with the existence of any nuisance or other local cause likely to originate and maintain disease, "to point out the most efficient modes "for the ventilation of churches, chapels, schools, lodging-houses, and other public "edifices." The Local Government Act, 21 & 22 Vict. c. 98. (1858) s. 34., gives a power to make byelaws for, among other things, the ventilation of buildings hereafter to be erected. And as regards manufactories, both the Public Health Act (1848), s. 53., and the equivalent Act for Scotland above referred to, contain the provision that—

"The owner or occupier of any factory or building in which persons of both sexes, and above 20 in number, are employed at one time in any manufacture, trade, or business," must "construct a sufficient number of water-closets or privies for the separate use of each sex;"

The Pottery Manufacture.

the penalty for non-compliance being 20*l.*, and 40*s.* for every day during which such default shall continue.

139. Such having been the action of the Legislature upon these subjects, it may fairly be considered that if it has been deemed desirable and proper, for the sake of the public and of individuals, to impose upon the owners and occupiers of dwelling-houses and other buildings the necessity of taking measures for the preservation of the health of the persons immediately concerned, and for removing causes of disease; if, more particularly, the Legislature has not shrunk from requiring from the owners and occupiers of mills, factories, print works, &c., and of mines, such effectual sanitary arrangements and other precautions for the health and safety of the workpeople as, in the case especially of the owners and occupiers of mines, might render necessary a large outlay and a considerable permanent expenditure, it cannot now be anticipated that any valid objection can be raised against Parliament requiring from the owners and occupiers of the potteries that they shall adopt reasonable measures for the improvement of the places of work in the pottery department, and for the proper ventilation and cleanliness of all their other workrooms. Until this is done there can be no expectation of relieving the people working in the potteries, young and old, from the extreme prevalence of pulmonary and other diseases of which they have been shown to be the victims, or of arresting the physical degeneracy which the state of their places of work has been so instrumental in producing.

Proposed mode of legislative interference.

140. We propose, therefore, that a Medical Inspector should be appointed for a limited period by the Secretary of State. The powers and duties of the Medical Inspector would be as follows:—

Medical inspector to be temporarily appointed.

1. Power of entry (as under the Coal Mines Regulation Act) into all potteries.

Powers and duties of.

2. To inspect and examine into the state of the places of work in reference to their construction, ventilation, and other arrangements, so far as they may affect the health of the children and young persons working therein.

3. On finding any place of work deficient in ventilation, or otherwise injurious to the health of such children and young persons, to serve notice in writing on the owner or occupier, stating the particular grounds on which he is of opinion that such place of work is deficient in ventilation, or otherwise injurious to health.

4. If within 14 days the owner or occupier does not signify to the inspector in writing his intention to remove such grounds of complaint within a specified and reasonable time, in a manner satisfactory to the inspector, the inspector to call upon the owner or occupier to nominate a civil engineer, architect, or other competent person, and the inspector to nominate another; an arbitrator to be appointed before proceeding to determine the matter in difference, as directed by the Mines Regulation and Inspection Act, 1860, s. 13. The arbitrator to be a person entirely unconnected with the district. As the assistance of a superintending inspector of the Local Government Act Office, 8, Richmond-terrace, Whitehall, under the direction of the Secretary of State for the Home Department, was granted to the medical officer of the Privy Council, to conduct a local inquiry, in which the knowledge of an architect and civil engineer was necessary (Public Health Report, 1861, p. 16), this precedent indicates probably the most satisfactory manner in which the services of an architect or civil engineer might be associated with the medical inspector, in the cases in which the latter required such assistance. The decision of the three persons so appointed to be final, and to be enforced by the justices of peace for the district, under penalties for non-fulfilment within a definite period. No justice of peace to act who is owner or occupier of a pottery, or the father, son, or brother, or agent of any owner. (23 & 24 Vict. c. 151. s. 22.)

141. Payment to arbitrator to be fixed by Secretary of State, and the amount to be paid in equal moieties by owner and the Commissioners of Her Majesty's Treasury, as under s. 13 of 23 & 24 Vict. c. 151. (Mines Regulation and Inspection Act.)

142. In defining the means to be taken to secure the efficient ventilation of the potters' shops and the workrooms, the words used in the Smoke Nuisance Abatement Act (Metropolis), 16 & 17 Vict. c. 128. s. 1. (in which potteries are mentioned by name), are "the best practicable means." In the Mines Regulation and Inspection Act, 1860, s. x., the words (as already quoted) are in substance "an adequate amount of ventila-" tion to dilute and diffuse noxious gases to such an extent as to render the working " places" . . . "in a fit state for working" therein. In the Bill now before Parliament for the Regulation of Bakehouses the words are "proper means of effectual " ventilation." Probably the last definition would be most suitable to the shops and workrooms in the potteries.

His services probably not required for more than two years.

143. There being only 180 pottery works in the Staffordshire district, and of these, as has been seen, probably not many more than 100 which would require any, or more than slight, improvements in the particulars under consideration; and the whole lying near

The Potter Manufactu

together in a district of only eight miles long from north to south, and from one to three miles broad, it does not appear probable that the continuous services of the medical inspector would be required for much more than one year. His occasional services would probably be required during one year more.

144. As it may be anticipated, from the known character of the owners of potteries in this district, that on receiving reasonable suggestions from the inspector they will be disposed to carry them into effect, it is probable that the occasional services of an arbitrator to be appointed by the inspector in cases of difference, as above described, will not often be required. The probable cost to the Government of such an officer may be inferred from the schedule of salaries of the superintending inspectors and civil engineers employed under the General Board of Health (Commons' Paper 504, p. 33, July 1857).

After two years the sanitary supervisio of the potteries t be placed under the Inspectors Factories.

145. It may be asked why, as we recommend that the potteries should be placed under the Factory Act, it would not be sufficient to place the duty of bringing the buildings of the potteries into a condition consistent with the health of the children and young persons working in them, in the hands, from the first, of the certifying surgeons, under the Factory Act, and the inspectors of factories.

146. Our reason is that the duties are of a kind involving special knowledge, and that the intervention of such a person as a Medical Inspector, specially appointed for the duty of originating these changes, acting with the advice and assistance where required of an architect or civil engineer, also appointed by the Government, and entirely unconnected with the district, would be more likely to carry weight with and command the confidence of both the manufacturers and the workpeople. This question is fully stated and clearly argued by the medical officer of the Privy Council in his 4th Report on the Public Health (1862), p. 30.

147. We are of opinion that the necessary improvements in the ventilation of the shops and workrooms, and the other sanitary arrangements about to be specified, might be required by the Act of Parliament to be carried into effect within two years from the passing of the Act. After that period their sanitary supervision might pass into the hands of the Inspector of Factories and the other officers named in the Factory Act. To this an addition would be required conferring on the Inspector of Factories of the district the same powers as have been above proposed to be conferred on the medical inspector to be appointed for the temporary duty described, in order to empower the Inspector of Factories to deal with new circumstances of a similar kind as they might arise.

Sanitary measures required f the protec tion of "dippers," "scourers, &c.

3. *Other specific regulations for the protection of health.*—148. Two employments were described as particularly obnoxious to health by Mr. Scriven, in 1841. Being a member of the medical profession, his observations upon them are entitled to the greater respect. The employments are those of the "dippers" and the "scourers."

149. As regards the "dippers," although Mr. Longe is able to report (p. 5) that—

"The glaze in general use at the present time is less injurious than that which was formerly used, in which arsenic formed an ingredient," and "there seems to be great reason to hope that even the lead may be dispensed with, without rendering the glaze less efficient or more costly;"

yet Mr. Longe's account of this "specially injurious employment" is substantially the same as to its effects upon the boys (nearly all whom he found engaged in this work having felt its effects more or less), as that given by Mr. Scriven, which is as follows:—

"The effects I have observed in the first and second on many of the older hands, and the evidence I have recorded from all have satisfied me that they are the most pernicious and destructive in the whole process of *potting*. It is true that in many instances persons have been known to have worked as '*dippers*' many years without any material consequences resulting or being perceptible, and they will tell you 'tis not so bad now as formerly, when a greater proportion of the poisonous metal entered into the composition of the liquid;' but even in those, whose constitutions may have been less susceptible of its influences, I have been able to trace in their dull and cadaverous countenances its *insidious* workings. In most of the rooms there are one or two adults, with their attendant boys, whose business it is to bring the ware in its rough, or in the phraseology of the potter, in its biscuit state, from the warehouse or painting room to the *tub*. By constant handling, the fingers become so smooth and delicate that they sometimes bleed, and thereby render the process of absorption more certain and rapid. The dipping itself, performed by the man, is momentary, and when completed the article is passed on to the boys for shelving and drying; the liquid consists of borax, soda, potash, with whiting, stone, and carbonate of lead, finely ground and mixed together with water; for coarse goods a larger proportion of lead is used, and in some cases arsenic. Both men and boys have their hands and clothes almost always saturated with it, and, reckless of the danger they incur, seldom or never change, or use precautionary measures, frequently taking their meals in the same room, sufficiently satisfied to wipe their hands on their aprons. I have never seen rooms provided for cleansing, though it will appear in some of the returned schedules that there is plenty of water and vessels at their command. From their disregard of prophylactic measures, you will not be surprised

The Pottery Manufacture.

that paralysis, colica Pictonum, epilepsy, and a host of other nervous diseases, are to be met with in all their aggravated forms. The most constant, however, is that of partial paralysis of the extensors of the hands in men, and of epilepsy in children, accompanied at all times with obstinate constipation of the bowels and derangement of the alimentary canal. But the strongest assurance that can be adduced of the deleterious effect that this process has on children is to be found in the evidence of the men themselves, who, when their affections have been appealed to as fathers of families, have invariably, to the question, 'Would you bring your own son to this dipping tub?' replied 'No.' And in the instance of John Cooper, he continued, 'Because I love my child, and would rather that he should 'live.' The average amount of weekly wages for men in this department is 30*s.*, for boys 5*s.*, which is higher than in many others, and obtained as an equivalent for 'the risk they run' (p. C. 4)."

150. Again, Dr. Greenhow in his report already quoted (Public Health, 3rd Report, p. 109, 1861), states of the "dippers" that they are—

"Exposed to the danger of lead poisoning, which is manifested by the characteristic blue line on the gums, by painter's colic and by paralysis."

151. Of the "scourers" Mr. Longe states (p. 6) that their employment is, "the most "injurious in the trade," and—

"That many young women are tempted to sacrifice their health for the sake of the high wages which this employment affords."

152. To the same effect is the testimony of Mr. Scriven in 1841:—

"When china ware is to be fired, it is first placed in coarse earthen vessels called 'jaggers;' these contain a quantity of finely pulverized flint; this, during the firing, attaches itself strongly to the china; some two, three, or more young women are employed to scour it off with sand paper and brushes; the particles float abundantly in the atmosphere of the room, and cover their persons just as plentifully as flour does the miller; in every act of respiration a considerable quantity is deposited on the mucous surfaces of the fauces, trachæa, and bronchial tubes, and, being acutely angular and irritating, soon occasions thickening of these membranes, as evidenced by their small weak voices; asthma, chronic cough, tubercular development, consumption soon follows, and death. Some of them will escape for a time, whilst others become easy preys" (C. 5).

153. Of the "scourers," many of whom, as has been seen above, are young women, Dr. Greenhow gives the following account (p. 110):—

"China scourers are in general exposed to only the first of these influences, and theirs is the most pernicious branch of the manufacture. The fine flint dust diffused through the air of the workshop, and inhaled into the lungs very soon produces discomfort, and a sense of oppression in the chest, soon followed by dyspnœa, cough and expectoration. The scourers very often have hæmoptysis, and sometimes suffer from epistaxis. China scouring is performed by women, few of whom continue very long at the operation. The danger to health varies according to the quality of the china: the scouring of the better kinds, owing to the greater fineness of the dust used in the manufacture, being an employment more injurious to health than the scouring of the common sorts. Out of 12 china scourers employed in one of the first establishments at Stoke-upon-Trent, only one had worked so long as three years at this branch of the business; but another who had worked five years, had lately left. The foreman of this pottery said, that china scourers who continue at the occupation never fail to become asthmatical, sooner or later. In another pottery, at Hanley, where an inferior sort of china is manufactured, a scourer who had worked eight years, and was suffering from chronic bronchitis, said that four other scourers who were employed in the same room had died from the effect of the occupation since she had commenced it, and that a fifth was then at the point of death. In a third pottery a woman who had worked 10 years at the occupation asserted that about 12 other scourers in the same shop had died since she entered it. Out of 13 china scourers belonging to six or seven different potteries, whose evidence was taken, only four were in good health; nine were suffering in consequence of their occupation. Of the latter, three were suffering from an advanced stage of chronic bronchitis, attended by great difficulty of breathing; four had suffered from hæmoptysis, and the others all had more or less shortness of breath, cough and expectoration. The eldest of these women was 50 years of age, two were over 40, and four were under 30 years of age. One of the latter was among those whose health had given way under the employment. China scourers are very liable to attacks of catarrh, which rarely fail to aggravate and hasten the progress of their disease. Those who relinquish the employment in time, are said occasionally to regain perfect health, but the greater number become irretrievably damaged in health."

154. Of the precautions which might be taken against the very noxious results of this process of "scouring," Dr. Greenhow states that,—

"In one of the potteries visited, the china was placed upon a small moveable turn-table, for the purpose of being scrubbed with sand-paper, an arrangement by which the dust was kept at a greater distance from the mouth of the scourer than when held in her hand. In another pottery the china was being rubbed with the opening of a sort of canvas tube or windsail, up which a draught of air carried a considerable portion of the lighter dust" (pp. 108, 109).

155. And again (at p. 111) he gives it as his opinion that,—

"Probably this branch of the manufacture might be rendered much less injurious to the health of the workers if some arrangement could be adopted for withdrawing the dust from the atmosphere, or

perhaps, the use of some kind of protection for the mouth, such as a respirator, might serve to exclude the dust from the air passages."

156. Dr. Greenhow attributes, as has been seen above (75), much influence in generating pulmonary disease to the quantity of impalpable dust flying about the shops of the "mould makers" and in the workshops of the potting department generally. He states (p. 107 of his report),—

"Some workshops are swept daily, others only once a week;" and of those that are swept daily "many are swept in the morning,"

a practice open to this objection, that the dust raised in the process has not time to settle again before the people commence work; but in most of the inferior potteries the floors are not swept oftener than once a week, probably seldom so often (p. 110).

"The continual running backwards and forwards" of the boys raises the dust and thus gives rise to "bronchial irritation." In this, as in other noxious occupations, the potters will often appear to resist the deleterious influence of their calling for some years, and then break down about middle age" (p. 111).

157. Dr. Greenhow adds, that,—

"The evils contingent upon this branch of manufacture might be greatly diminished, by more care being taken to avoid scattering the plaster over the floor, and by regularly sweeping the latter, so as to allow as little of the material as possible to accumulate upon it, and be raised into the atmosphere by trampling about" (p. 107).

158. In the Factories Regulation Act, 1844 (7 & 8 Vict. c. 15.) there is a clause (s. 19.) for the protection of workers in wet-spinning flax mills. It is as follows:—

"And be it enacted, that after the expiration of six months from the 1st of October 1844, no child or young person shall be employed in any part of a factory in which the spinning of flax, hemp, jute, or tow is carried on unless sufficient means shall be employed and continued for protecting the workers from being wetted, and where hot water is used, for preventing the escape of steam into the room occupied by the workers."

159. The inference is immediate that if the consequences arising from children and young persons and women being so employed in certain factories as to be liable to be continually wetted, were sufficiently grave to induce the Legislature to interfere for their protection, the extreme injury to health arising from these processes of "dipping" and "scouring," and from the neglect of proper means of reducing the amount of dust in the potters' workshops, appeals, in the case of the young engaged in the potteries, with tenfold force to the Legislature for such protection or mitigation as the circumstances of the case admit of.

Special rule should be adopted in accordance with precedents.

160. The process by which sanitary and other regulations are established in the case of coal mines and ironstone mines, as described in pp. xxii., xxiii., under the Mines Regulation and Inspection Act, 23 & 24 Vict. c. 151., would seem to be readily applicable to the case of the potteries. The medical inspector, whose proposed duties in regard to ventilation, &c. have been described in p. xxiv., xxv., would be the fittest person to propose, under the sanction of the Secretary of State, the "special rules" of a sanitary nature, in respect of the matters above mentioned in relation to the "dippers" and "scourers," and the dust in the potters' shops, &c. The mode of settling these special rules with the owner or occupier of each pottery, and the mode of appeal to an arbitrator in case of difference of opinion between the inspector and the owner or his agent, have been noticed above (pp. xxii., xxiii.), and are fully defined by sect. 13 of the above-mentioned Act. When once these special rules were established, after such careful discussion as they would undergo in the course of the process pointed out, and after receiving the sanction of the Secretary of State, no difficulty would be likely to arise in causing them to be observed, or in making any alterations that might be from time to time required, through the ordinary machinery of factory inspection.

Overtime should be pu an end to.

4. *Overtime.*—161. Mr. Scriven, in his report (C. 5), thus describes the oppressive and injurious custom of working the boys in one large department of the pottery work beyond the usual hours, as it existed in 1841:—

"The class of children whose physical condition has the strongest claims to consideration, is that of the 'jiggers' and 'mould-runners,' who, by the very nature of their work, are rendered pale, weak, diminutive, and unhealthy; they are employed by the dish, saucer, and plate makers; their hours are from half-past 5 in the morning to 6 at night, but in numberless instances they are required to labour on till 8, 9, or 10, and this in an atmosphere varying from 100 to 120 degrees, all these extra hours being occasioned, nine times out of ten, by the selfishness or irregularities of their unworthy taskmaster. The men work by the piece: however much there may be on hand to accomplish, they seldom or ever work after Saturday noon, and often not before the following Tuesday or Wednesday morning, but spend the hard earnings of the previous days idly and unprofitably. Once gone, they again 'buckle to,' and work like horses. Each man employs two boys, one t

The Pottery Manufacture.

turn the jigger or horizontal wheel from morning to night, the other to carry the ware just formed from the 'whirler' to the hot-house, and the moulds back. These hot-houses are rooms within rooms, closely confined, except at the door, and without windows. In the centre stands a large cast-iron stove heated to redness, increasing the temperature often to 130 degrees. I have burst two thermometers at that point. During this inclement season, I have seen these boys running to and fro on errands, or to their dinners, without stockings, shoes, or jackets, and with perspiration standing on their foreheads, after labouring like little slaves, with the mercury 20 degrees below freezing. The results of such transitions are soon realized, and many die of consumption, asthma, and acute inflammations. It is admitted on all hands that their work is the most arduous and fatiguing of all others. Of this there is abundant proof, on turning to the evidence of John Johnson (No. 48), Longport, which is confirmed by many others. It will appear that a good workman can, and frequently does, make eight score dozen saucers a week, each dozen counting 36 pieces. Each piece is carried twice to and fro, and weighs (mould and bat) 2 lbs.; but as two pieces are carried at the same time, they will count but as one, and as 4 lbs. on every trip.

"Let us first calculate the weight absolutely borne, then the distance run barefoot: Eight times 20 is 160; 36 times 160 is 5,760 pieces of 2 lbs. each, carried in six days of only 72 hours, which, multiplied by four (the weight of two moulds and bats), gives 23,040 lbs. Divided by six, the number of working days in the week, will give 3,840 lbs. a day of 12 hours, without deducting the so-called one and a half hour for meals, which, by the way, they never get.

"The average distance from the whirler to the centre of the stove is an honest 7 yards; the same back will make 14; 14 times 5,760 yards gives 80,640, or 45 miles 1,440 yards in a week; which, divided by six, gives 7 miles 1,120 yards per day. Besides this, they have to mount one, two, or three steps to place the pieces upon the shelves. But this is not enough, their master requires them, while he is taking his pipe or his pot, to wedge the clay in the yard, collect the half-dried pieces from the shelves; again, to come half an hour or more before him in the morning, to get coals in, ashes out, and sweep and make ready for him the room, or anything else that may be wanted, and probably has to walk a mile before and after his work. If the master's propensities prompt him to loiter away the earlier days of the week, he works the extra hours on middle days to make up his losses; thus the child—the almost infant child—is taxed with three or four hours' increased exertion, to the sacrifice of his health, his morals, and every domestic comfort that he would otherwise enjoy, and this, without the least remuneration, as in every case his wages are the same, whether he makes the 12 hours or 16. The evil is lamented by the honest workman, by the children, by the parents, and universally by the manufacturers, who acknowledge their inability to correct it themselves without incurring the risk of exciting tumult, and thereby occasioning some delay in the execution of their orders, as the processes are so linked in with each other, that by losing one set of men the others are rendered useless.

"Should a remedy be suggested, the children would have reason to hail the day of their emancipation from toil little removed from slavery."

162. The only question now can be, does this practice continue? Are there young boys whose ordinary day's work must be sufficiently exhausting, since it consists of running backwards and forwards a distance of 7 miles in a temperature and with weights as above described, who not only do this amount of work, but are called upon by the men who employ them to add to it by one or more hours of overtime towards the end of the week, because their employers have spent in idleness a day or more at its beginning? The answer is, that this system still continues, although its hardship upon the boys and its disadvantage to the master manufacturers, the owners and occupiers of the pottery works, has been exposed for upwards of 20 years.

163. Mr. Longe gives the following summary of the hours of work in various departments of the pottery works, and in the large and important branches in which the largest number of children are employed (pp. 2 and 4):—

"The usual hours of work throughout the district are similar to those stated by the employers in the tabular forms. They are generally from about 6½ a.m. to 6½ p.m. On Saturday work ceases in some manufactories at 2 p.m., in others at 4 p.m. In some manufactories work is continued to 7 p.m. on Fridays. These hours, however, are frequently exceeded in the case of pressing orders, on which occasions children as well as adults are employed to 8 or 9 p.m.; and sometimes, but I believe very rarely, through the whole night. Some of the children are also liable to be worked beyond the usual hours through the irregular habits of the men for whom they work." . . . "The above description shows the ordinary employment of these boys; they are, however, liable more than any other class of children to be worked beyond the regular hours. It is still too frequent a practice among the flat-pressers, as with other potters, to waste the first days of the week in idleness or the beerhouse, and then work themselves and their boys until 8 or 9 o'clock on Thursday and Friday in order to recover their lost time."

164. Numerous instances are given in the evidence of this species of overwork, and in the cases of very young boys.

165. (P. 16.) William Wood, aged 9 years 10 months, was 7 years and 10 months old when he began to work. He "ran moulds" when he first began to work. He comes at 6 a.m. every day in the week and "gives over" about 9. "I work to 9 six days "in the week. I have done so seven or eight weeks."

166. At another pottery (p. 16) Robert Barlow said, he was 8 some time ago; he did not know when he would be 9. Six months previously he worked for J. Rutter. He "ran moulds, wedged clay, and turned jigger." "I used to come two or three days in the "week at 5*s*. I worked to 7; sometimes to 8. Sometimes I worked three days, some-"times two days in the week till 8." T. Kelsale (p. 12); T. Ball, age 11 years 7 months; R. Jones, age 14; J. Murray, age 12 (p. 19), and many others throughout the evidence give similar testimony. The last-named boy, J. Murray, states,—

"I turn jigger and run moulds. I come at 6; sometimes I come at 4. I worked all night last night, till 6 o'clock this morning. I have not been in bed since the night before last. There were 8 or 9 boys working last night. All but one have come this morning. I have not worked any other night this week. I get 3*s*. 6*d*. I do not get any more for working all night. I have worked five times in my life all night. I worked two nights last week."

167. Joseph Davenport, manager of the works of Messrs. Adams and Son, earthenware manufactory, Stoke-upon-Trent, appears to express the opinion of the manufacturers that this system should be put an end to. He states (p. 11),—

"It would be a good rule that children should not be allowed to work after 6 p.m. It would make the men regular. It is contrary to the rules of our works that men should work after 6, but they often do it to suit their own convenience. They keep the boys idle one day, and then work them too much the next. There ought to be a compulsory rule that they should give over at 6."

168. There can, therefore, be no question that the hours of labour for the young in the pottery department ought to be limited by law to factory hours. In the finishing department, although the children and young persons are "generally confined to the regular "hours of work," yet, Mr. Longe states,—

"They are liable to be employed considerably beyond those hours in some manufactories at periods of brisk trade." (P. 6.)

169. The ordinary excuse for working overtime, that it is necessary to execute an order (Mr. J. Hawley, p. 18, Mr. J. W. Barlow, p. 19, Mr. Green, p. 20), cannot be accepted as valid, after the experience of the factory legislation in the cases of mills, bleaching works, and other departments of manufacture in which the same argument was used, and determined by Parliament to be untenable. The truth in regard to this question appears to be expressed by Mr. Beardmore, earthenware manufacturer, Longton (p. 20), that there is "no real advantage whatever working overtime;" and by Mr. George Mountford, earthenware manufacturer, Fenton (p. 15), that—

"If there was a law passed to compel all manufacturers to close their gates at 6 o'clock, I believe it would be a great blessing for us all."

5. *Meal-times.*—170. Irregularity of meal-times will be a necessary concomitant of over-time and irregular hours of work, under the pressure of lost time to be made up, in consequence of the idleness of the men at the early part of the week, or of orders to execute within a given time. Mr. Longe states (p. 4) that "the dinner hour is liable "to be curtailed on the later days of the week by irregular workmen." The breakfast hour is also liable to a similar irregularity. R. Barlow states (p. 16), "I got my breakfast "sometimes at 20 minutes past 9; sometimes at 8." And the dinner hour to curtail-ment. "Sometimes I went to dinner at half-past 1. When I went to dinner at half-"past 1, I came back to work before 2, a good many times." J. Ferneyhough, age 10 years and 1 month, states (p. 18), "I have not always an hour for dinner; generally. I "have only half an hour sometimes; on Thursday, Friday, and Saturday." Other witnesses state they have three-quarters of an hour for dinner (T. Ball, p. 19, S. Col-clough, p. 20). There is no doubt, therefore, that the meal-times ought to be brought into conformity with the regulations of the Factory Act.

171. In order to remove a misapprehension which we have noticed as common among those unacquainted with the Factory Act, it is desirable to call attention to the fact (as we have done also at p. lvi.) that s. 36 of the Act only forbids the meals to be taken in the factory if work is still going on. In reference to the "dippers" and "scourers" in this branch of manufacture (p. xxv.–xxvii.) this provision is of particular importance.

Moral Remedies.

6. *The half-time system of the Factory Act.*—172. The memorial of the employers above referred to (p. viii.), addressed to the Secretary of State, speaks of "the very early age" at which children are employed in the potteries, the early age at which they leave school, and the "moral and physical evils" to which these two circumstances give rise. The memorial therefore adds that "some legislative enactment is wanted to "prevent children from "being employed at so early an age, and to secure to them, at any rate, a minimum of "education."

The Pottery Manufacture.

The only question accordingly that requires to be determined is what species of enactment would be most beneficial, and at the same time not unsuitable to the conditions under which the pottery manufacture is carried on.

173. Of the various modes of connecting education with a wages-yielding employment, which are open for selection in this instance, the following are the most prominent;

174. The Education Clauses of the Factories Regulation Act of 1844 (7 & 8 Vict. c. 15.); the provisions of the Print Works Acts (8 & 9 Vict. c. 29., and 10 & 11 Vict. c. 70.); and those of the Mines Regulation and Inspection Act (23 & 24 Vict. c. 151.)

175. Of these the provisions for education under the Print Works Acts have been shown, by the reports of the Inspectors of Factories, to be in the majority of cases ineffectual, and not to be recommended for imitation if any other plan is available. (Mr. Baker's Report for October 1862, p. 52.) The provisions of the Mines Regulation Act in respect to education have only been in force since July 1st, 1860. They require for boys between the ages of 10 and 12, as a condition of employment, a certificate under the hand of a competent schoolmaster, that such boy is able to read and write; or a certificate under the hand of a competent schoolmaster that such boy has attended school for not less than three hours a day for two days in each week during the lunar month immediately preceding, exclusive of any attendance on Sundays. These provisions, however good in themselves, are found in practice to be largely evaded by the non-employment of boys within the ages specified. The Education Clauses of the Factory Act (1844) are without question the most satisfactory and beneficial means yet devised by Parliament for ensuring some amount of elementary education to the young in connexion with wages-yielding labour. Are there any special reasons why this system should be inapplicable to the potteries? We are of opinion that there are none, and we believe that we shall be able to point out satisfactory reasons for the conclusion that the gradual application of this system to the potteries will lay the foundation of improvements which will be of signal advantage both to the children, to the parents, to the employers, and to society at large.

The gradual application of the half-time system desirable for the potteries.

Doubts and objections of employers.

176. Our Assistant Commissioner, Mr. Longe, has given most full and fair expression to the very natural doubts and objections which present themselves to the minds of a body of employers when called upon to consider, with reference to impending legislation, the applicability of a system such as that of the education provisions of the Factory Act to their industrial condition and arrangements.

But removed by review of the progress of legislation on that subject.

177. We shall best aid in removing those objections by referring, as briefly as possible, to the progress of opinion in regard to the education clauses of the Factory Act, as recorded in the reports of the Inspectors of Factories; and we have the less hesitation in doing so, because we have found that the same doubts and objections have occurred to many of the other employers whose occupations are the subject of this report; and are also very likely to occur to many of the others whose arrangements in reference to juvenile labour we are called upon by this Commission to investigate.

178. The Factory Act, 1833, was in force until The Factories Regulation Act was passed in 1844.

179. By the Factory Act, 1833, s. 7., the employment of children under 9 years of age was prohibited; and

180. By s. 8, the age at which children were to be permitted to work full time being fixed, as at present, at 13, the arrangement was made to take effect by successive stages as follows:

181. For the first six months after the passing of the Act no alteration was made.

182. In the period from 6 to 18 months after the passing of the Act, children who had completed their 11th year were allowed to work full time.

183. In the period from 18 to 30 months after the passing of the Act, children who had completed their 12th year were allowed to work full time.

184. After 30 months from the passing of the Act, no child was allowed to work full time who had not completed its 13th year.

185. And by the same section children were permitted to work on an average eight hours per day.

186. The children were required by ss. 20 and 21 to attend "some school" for two hours a day, and to produce a schoolmaster's voucher for such attendance. A sum not exceeding one penny in every shilling earned by the child might be deducted from its wages to pay the schoolmaster; but the payment might be disallowed or withheld (s. 23) by the inspector if he were of opinion that the teacher was incompetent.

187. In July 1837, namely 18 months after the Act had come into full operation, Mr. Horner, Inspector of Factories, reported (p. 15) that the impression left upon him,—

"By the inspection of the last quarter has been that the Act is viewed with less dislike than formerly by some mill owners, that the necessity and justice of legislative interference on behalf of the children

is admitted by a greater number, and that the observance of the Act, when fairly set about, is found to be less onerous than it was represented and believed to be." The Pottery Manufacture.

188. In July 1839 Mr. Horner states (p. 12),—

"Some proprietors of large mills have very recently said to me that they are convinced the Act has done much good in many ways, and that they would regret to see factories left without some restrictions, either as to the hours of work or to the ages of the persons employed."

189. In January 1840, Mr. Saunders, Inspector of Factories, reported (p. 21), that, in the opinion of an intelligent mill owner in his district,

"The restriction of factory labour has been of the highest benefit to the factory children, both in a physical and moral point of view. They are stronger and more healthy, better behaved and more cleanly, and attend Sunday schools much more regularly; their wages have increased rather than diminished, and in every respect placed them in a much better position than the children which have to follow some other employment."

190. But the Act of 1833 had certain defects, which were pointed out in the inspectors' reports, and which gave rise to just complaints. Accordingly in 1844 the Factories Regulation Act was passed, by which children of eight years of age were permitted to be employed; the hours of work for children reduced from eight hours to half a day; additional regulations made for work on alternate days, and attendance at school; the school hours limited to three hours between 8 o'clock a.m. and 6 o'clock p.m.; the occupier required to pay the school fees, not exceeding 2*d.* per week, and to deduct from the wages of the child a sum not exceeding one twelfth part of its wages; and other improvements introduced for the benefit both of the children and the employers.

191. While the Act of 1833 was in operation, and the above changes were under discussion, the difficulties and objections appeared great to a large proportion of the mill owners. Those difficulties and objections were clearly stated by Mr. Saunders in his report of July 1843 (p. 27). They are precisely those which have lately presented themselves to the minds of the great majority of the employers in the potteries; they are as follows:

"The principal objections raised against the half-time clauses may be classed as follows:— Objections set forth against the half-time system.

1st. That it will reduce the wages of the children, so that the parents will not find it worth while to send them to work for half a day, and suffer much privation in consequence.

2nd. That the manufacturers will be put to greater expense, from the necessity of employing older hands, or increasing the wages of the younger classes, should there be any scarcity in the supply of hands.

3rd. That it will cause a greater number of hands to be brought up to factory work than can find employment in it afterwards as young persons or adults, and thus by a redundancy of labour reduce wages generally.

Other reasons are assigned, but none that are entitled to any weight in comparison with those which I have enumerated, or which cannot be fully answered."

192. To Mr. Saunders' reasoning in answer to the above objections, we beg leave to refer, as being equally applicable in principle to the state of the case in the potteries.

"It would be preposterous to assert that any considerable change can be effected in an established practice without a possibility of that change subjecting some individuals to injury or temporary inconvenience. However prejudicial the worst system ever followed in any branch of trade may be to the health, comfort, or improvement of workers, there cannot be a doubt that even the most careful substitution of an improved system may at first cause individual cases of hardship and privation, and it is not contended that this is an exception to that general rule. The adoption of any change must be determined upon only from a conviction that the aggregate amount of advantages secured, and the evils removed or mitigated, overbalances considerably any temporary or private inconvenience. This is eminently the case in respect of the alteration to which I now allude. Temporary inconvenience may arise.

"If the change from eight hours' labour to half a day had been for the first time proposed, if it had been impossible to refer to experience as to the working of the system, or if the advantages gained had been shown only in theory, then indeed too much caution and discussion could not have been devoted to the subject; but here again (as in the case of schools) the Government are enabled, in a most satisfactory manner, to appeal to facts in support of the proposition they have submitted to Parliament.

"The original proposal was suggested by mill occupiers, themselves employers of children, after they had had some experience in the application of it. It has been voluntarily adopted from a conviction of its simplicity, and the advantages derived from it, both to themselves and the children, by a considerable number of mill occupiers in several places and under great variety of circumstances. One fact is deserving of special notice, viz., that its application originated and it is generally first adopted in any locality by those who take the greatest interest in the welfare of their hands, and those who have given the best proof in other ways that they desire to improve the general condition and comfort of their workpeople as well as the education of their children." (P. 27.) . . .

"It must also be admitted that there are situations and circumstances where some inconvenience might at first be reasonably apprehended; but a careful examination will prove that it is hardly possible, in any conceivable locality, that more than one of the difficulties enumerated can occur, and then only partially, whereas, on the other hand, the readiness with which the plan has been adopted

The Pottery manufacture.

the whole of each alternate day, a change of dress during the dinner hour, such as the other system involves, is avoided.

"In mills situated in rural districts children have often considerable distances to travel between their homes and their place of work. In such situations the half-day system subjects children to great inconvenience, especially when, as it frequently happens, the factory and the school are situated in opposite directions from their residence. The alternate day system corrects this evil to a material extent; and moreover enables each child to attend the best school in the district of its residence, instead of being forced to go to a school in another district, simply on account of its contiguity to the factory."

roportion children der 13 had creased.

200. In 1856 the joint Report of the Inspectors of Factories gives, in a series of tables for the years 1835, 1838, 1850, and 1856, the number of children under 13 employed in those years, and the centesimal proportion of the different classes of hands employed, from which it appears the proportion of children under 13 diminished from 13·3 per cent. in 1835 to 5·9 per cent. in 1838, 6·1 per cent. in 1850, and 6·6 per cent. in 1856; thus affording a striking contradiction to the anticipations that had been formed of the half-time system leading to a great increase in the proportion of children employed. At the same time and for the same years their actual numbers in the cotton, woollen, worsted, and flax factories, were 47,373 in 1835, 24,831 in 1838, 38,624 in 1850, and 44,385 in 1856. Their total numbers, therefore, after 20 years of great development in the cotton trade, were not so great as at the commencement of that period; the addition to the total numbers of persons employed (which had risen from 354,684 persons in 1835, in all the factories including silk, to 682,497 persons in 1856), having taken place, as shown by the report (pp. 18–19 and pp. 31–32), among the older males and the females.

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201. The Reports for 1857, 1858, and 1861 contain striking evidence of the value of the principle of the half-time system "in combining regular attendance at school with "a wages-yielding employment" (June 1857, p. 90); of the large amount of "varied "and solid instruction" that was now given to the half-time children wherever good schools were accessible to them; and that whereas at the commencement of the system the great majority of the schools attended by the half-time children were bad (one is reported by Mr. Horner, in his Report for July 1839, p. 13, as being held "in the coal-"hole of the engine-furnace, by the fireman, and taught from fragments of books as "black nearly as the fuel"), and that whereas even in 1843 "only 19 children out of "every 100 attended public schools, . . . now nearly 70 out of every 100 children "attend public schools, which are to some extent under public control, the greater pro-"portion of these also being under the inspection of the inspectors of schools." . . . Mr. Horner's Report for April 1860 (p. 19).

202. Mr. R. Baker, Inspector of Factories, in his Report for October 1859, describes the great physical benefits that the working population have derived from the provisions of the Factory Acts. He says (p. 48),

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"There is scarcely now to be seen in any of the manufacturing districts a crooked leg or a distorted spine, as the result of factory labour, unless, indeed, it be an old man, one of the specimens of other days. The once pale and haggard faces are now ruddy and joyous; the once angular forms are now full and rounded; there is mirth in the step and happiness in the countenance. The physical condition of the future mothers of the working classes may be challenged to meet that of any mothers of any country."

203. And in the same report Mr. Baker gives these four results as having accrued from the Factory Acts.

1st. The complete protection of the physical condition of the workers.
2nd. The increase of wages, and thereby the increased comforts of the people.
3rd. The non-limitation of production.
4th. The combination of education and labour in the case of children.

204. And, finally, in October 1861, Mr. Baker presents the following very suggestive propositions, illustrating the value of the half-time system as an instrument of education, and offering valuable guidance in regard to the future.

"And certainly from this evidence, (and which I have quoted more at length than I at first intended, thinking it might be useful to many who are taking an interest in the education of the working classes) the corollaries appear to me to be nearly the same, whether among the industrial hives of Lancashire and Cheshire, or the less crowded manufacturing districts of the southern and western parts of England, viz.:—

(1.) "That notwithstanding what has hitherto been done in regard to public education, there are still large numbers of children, hereafter to live by their daily labour, who never attend school before they are put to employment.

(2.) "That these are for the most part the children of negligent or improvident parents, or orphans, and otherwise destitute.

(3.) "That two-thirds at least of all half-timers appear not to be sent to school previous to employment, and that but for the provisions of the Factory Act, the numbers of uneducated children,

even where the average rate of adult wages is highest, as well as the evil effects of congregational labour, must be greatly increased. The Potte Manufact

(4.) "That when 'half-timers' have attended school before being sent to work, they make nearly equal progress with whole-day scholars; but when they have not been so sent, under the most favourable circumstances, equality of progress is only the result of a higher average age over the day scholars.

(5.) "That where 'half-timers' attend school only in the afternoon, they do not make the same progress as those who attend either altogether in the morning, or in the morning and afternoon alternately.

(6.) "That in the silk districts, where the full-time age of young workers is reduced from 13 to 11 years, the education provided for them is in a great measure useless, as the children leave just at that period of school life when learning is becoming easier, and early training more productive of benefit; and that where such workers are the children of improvident or negligent parents, the probable amount of their whole school time, before being put to full work, does not exceed 10 or 12 months.

(7.) "That to reduce the full-time age from 13 years to 12, in any case, would not only endanger the modicum of education which 'half-timers' at present receive, but the employment of half-time children at all.

(8.) "That it would be desirable to require from all children a certificate of a certain minimum amount of education previous to employment, and a certificate of a certain maximum amount thereof on attaining the age of 13; in default of which the education begun during half-time employment should be carried on, to a period not exceeding 16 years of age, in some night school until the required maximum amount of education be attained.

(9.) "That in consequence of their non-interference with the normal hours of labour, night schools for the labouring classes are to be relied on as the great instrument for continuing the education of those who have been 'half-timers,' and others, until they are prepared for more advanced educational institutes." (Pp. 37, 38.)

Success of the half-ti system as stated by Mr. Chad wick.

205. Convincing as the above summaries of the results of the half-time system are, it would be inexpedient to omit a reference to the inquiries of Mr. Chadwick on this subject, the results of which are given in his two Papers ordered to be printed by the House of Lords in June 1861.* These results are stated in the following passages, and are particularly worthy of the attention of all employers in whose minds any doubts may remain as to the value both to the children, to employers, and to the community, of the half-time system, wherever it can be safely and successfully carried into effect.

"The principle laid down was that working young children during the same stages as adults, and which suffice for adults, is always injurious overwork for young and growing children, whether the work be mental or manual. The three hours' compulsory attendance at school, even where the teaching is inferior or nominal, has been successful as a preventive of bodily overwork; the effect has been an improved physical growth, as medical officers attest, and also an improved quality of labour during the reduced hours,—as employers admit." . . . (Letter to Mr. Senior, p. 8.)

"Where by voluntary exertions the half school-time teaching has been provided of a proper quality, as by intelligent manufacturers, such as the Messrs. Walker of Bradford, the Messrs. Ashworth of Bolton, Mr. Bazley of Manchester, the Messrs. Chadwick of Rochdale, the Messrs. Birley of Manchester, or where there have been schools under trained masters to whom the 'half-timers' have been sent, as at Oldham, Rochdale, Manchester, and elsewhere, or where, as in the poor-law district schools, the half-time system has been carried out otherwise, there you have such testimony as I have adduced, and as may be extended from experienced school teachers, of practical results which affect the whole of the prevalent practice of infantile and juvenile education and training." (P. 8.) . . . .

"The experience of the short school-time district industrial schools, as displayed in such evidence as that which I have collected and transmitted, is demonstrative of a general conclusion that by the administrative division of educational labour, the elements of popular education, reading well, with some skill in parsing, writing a fair hand, spelling well, arithmetic up to decimal fractions, the naval and the military drill, and vocal music, may be taught well, together with the elements of religious instruction, in about one half the time now commonly occupied in teaching indifferently the three elementary branches, as they are considered, of a popular education. It is found that beginning with the infant school, these courses of mental and bodily accomplishments may generally be completed soon after the tenth year. Whereas under the present practice school attendance is required until the thirteenth year for the communication of an inferior amount of book instruction alone. The practicability of the reduction by one half of the ordinary period of teaching is established by the evidence of the most successful school teachers." (P. 19.) . . . .

"The gain in time from six to five or three hours of daily school attendance, and from six to three years—half the time now commonly occupied—is not the sole or the most important gain achieved in the large separate schools by the division of educational labour and the application of the half-time system. A boy who has acquired the same amount of knowledge in one half the time of another boy must have obtained a proportionately superior habit of mental activity. This is the experience stated by employers of labour in good half-time school districts, who have ceased to employ 'long-timers' when they can get the 'short-timers'; and it is this quality of superior mental alertness,

* A letter to N. W. Senior, Esq., one of Her Majesty's Commissioners for inquiring into the State of Public Education, and "Communications from Edwin Chadwick, Esq., C.B., respecting Half-time, and Military Drill and Naval Drill," &c., &c.

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combined with the bodily aptitude created by the previous drill, which has given the comparatively stunted pauper boys of the towns the preference over the strong robust lads from the coast.

"The mental habits of listless attention, prolonged beyond periods in which it is psychologically possible to obtain voluntary and profitable attention from children,—the mental habit of 'dawdling,'—of listless waiting, which the common school teaching during long hours communicates, are highly pernicious and economically wasteful, more especially for those who have to gain their own livelihood; and such idle mental habits commonly tend to vice and misery in after life even on the part of those who have not." (P. 20). . . .

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206. These therefore being, as has been seen by the series of extracts above given, the great results of the Factory Acts, namely, that, in the words of Mr. Baker (October 1862, p. 59), "whilst they have conferred the highest benefits on the working classes, "they have neither diminished production nor lowered wages, but have increased both," the arguments and opinions with which the evidence given to Mr. Longe abounds remain to be considered, by which it is sought to deprive the children, and indeed the whole population engaged in the potteries, of a large portion of those great advantages by substituting for the provisions of the Factory Act some limitation only upon the age at which the children should be allowed to go to work, and a very inadequate mode of securing for them some amount of elementary education.

tistics of ldren, &c. the pot- ies.

207. According to the census of 1831 there was, in the registration district of Stoke-upon-Trent, which may be practically considered to comprise the district of the potteries, a total population of all ages of 51,968. It is estimated that this population had increased at the time of the census of 1861 to 101,302. (P. xiv.)

208. The detailed tables of age and of the occupations of the people for the last census not being yet published, resort must still be had to the census of 1851. According to that census there were in that district—

Between the ages of 5 and 10,		
Males	3,616	
Females	3,645	
		7,261
Between the ages of 10 and 15,		
Males	3,380	
Females	3,434	
		6,810
Total between 5 and 15		14,071

(p. 426.)

209. Of these there were engaged in the earthenware manufacture—

Between the ages of 5 and 10,		
Males	527	
Females	161	
		688
Between 10 and 15,		
Males	3,045	
Females	1,879	
		4,924
Total between 5 and 15		5,612

(pp. 464–467.)

210. Mr. Longe, taking as the basis of his estimate of the number of children employed in 1862 the tabular returns made to him by employers from about four-fifths of the district, places the number of those employed under the age of 13 at 4,500 (p. 1); a number which, allowing for the two-tenths which must be deducted in the comparison between his estimate and the census returns which comprise the ages also between 13 and 15, will bring Mr. Longe's estimate into very close correspondence with the census returns of 1851.

211. Of these 4,500 children Mr. Longe states that they may be distributed according to their employments as follows:—

Males.

Mould runners and jigger turners	1,850	
Assistants in the dipping house, handlers, warehouse, packing, and errand boys	950	
		2,800

Females.		
Paintresses and burnishers - - - -	1,100	
Paper cutters, &c. - - - - -	600	
	——	1,700
		4,500

No difficulty in applying the half-time system to girls.

212. It is admitted with regard to the girls that in the event of the half-time system of the Factory Act being applied to the potteries, there would be no difficulty in obtaining a double set of them (Mr. Longe, p. 9); but it is strongly represented that in the case of the paintresses some special regulation must be made on account of the peculiarity of their employment. And to this point we purpose referring hereafter.

Answers to objections as to boys.

213. With regard to the boys, as indeed with reference to both boys and girls, it is assumed by those who argue against the possibility of applying the system of the Factory Act to the potteries, that the application of that system necessarily implies, and in some sort makes imperative, the employment of a double set of boys below the age of 13. (Mr. Longe, p. 9.)

214. This is an entire misapprehension. The requirements of the Factory Act have led, as has been abundantly shown (pp. xxxiv.–xxxv.), to a great diminution of the employment of children under 13, and their place has been supplied—

1st. By older persons, male and female.
2nd. By improvements in the construction, and adding to the speed of machinery.

215. It is asserted,—

1. That older boys are not to be had.
2. That younger ones are unsuited to the laborious work of the hot stoves, and to that of "wedging clay."
3. That there is a want of regularity in the number required, arising from the varying orders of the employer.

216. The following considerations afford, we believe, an effectual answer to the above objections.

217. The employments of the boys may be divided into two classes :—

Those engaged in the various operations of the manufacture, namely,

The mould runners.
The jigger turners.
The assistants in the dipping house.
The handlers.

Those engaged in the warehouse department, &c., namely,

Warehouse boys.
Packing boys.
Errand boys.

218. Of the four descriptions of work in the manufacturing branch, three are in point of fact performed by very young boys (Mr. Longe, pp. 3, 5), the jigger turners, the assistants in the dipping house, and the handlers; and of the mould runners many are also very young (p. 5).

219. The work of the assistants in the dipping house, and of the handlers, is not laborious (pp. 3, 5), or in itself unsuitable to children between 8 and 13.

220. Jigger turning is undoubtedly "very hard work for children to be engaged in "during a whole day," (p. 3), as is also mould running (p. 9).

221. At these two occupations it would be undoubtedly desirable that only boys of 13 and upwards should be employed, as long as the hot stove system remains as it is, and while in the intervals between other work during the day, young boys are engaged in the hard labour of "wedging clay" (p. 4).

222. But if either of the two alternatives for the improvement of the hot stove system, adverted to at p. xvii.–xix., were adopted, namely, if either the stoves were to be only heated during the night, or a new description of stove substituted for the present one, in either of these cases, (and it may confidently be anticipated that one or the other will to a great extent take place within the period of two years above stated,) (p. xxv.), the work of mould running, if limited to factory hours, would not be oppressive to boys between the ages of 8 and 13. And if relieved from the heat and dust, which now aid materially in making the jigger turning exhausting and injurious to very young boys, and if reduced to factory hours, jigger turners of eight years and upwards might with propriety be employed.

The Pottery Manufacture.

223. This opens the door to the safe employment of boys as young as 8, in the whole of these four branches of the manufacturing department named above, and accordingly gives to the potter the power of drawing his supply of labour from a wider field than is now available to him.

224. At present the potter complains that his supply of boys' labour is limited by two prominent causes:

1st. By the reluctance of the better class of labouring persons to send their children to pottery labour, on account of its laboriousness and its unhealthiness.

2nd. By the attraction of the higher wages which strong boys are able to earn in the numerous collieries and iron-works in the neighbourhood, and in other employments.

225. In answer to the first point it may with confidence be anticipated that the abolition of the hot stove system by either of the alternatives above indicated, the enforcement of the best practicable means of properly ventilating the work-rooms in the finishing department, and the compulsory attention to sanitary regulations, such as have been described, for the prevention of disease, would remove the present very natural objections of many parents to pottery labour for their children, and would enable the potter not only to draw upon the schools, which now contain so large a proportion of boys under 9 years of age;* but, to a much greater extent than he is now able to do, upon the general population of the district. Under the improved conditions above adverted to, it would assuredly not much longer continue to be the fact that the children who are employed "in "most cases belong to the poorest families; the ragged class of the district being almost "entirely absorbed in this employment." (Mr. Longe, p. 4, Hiring and Wages.)

226. The second point involves the inquiry whether the pottery trade could bear the additional rate of wages that might be required to secure the services of the boys on the half-time system.

227. Mr. Scriven states, of the potters, in his Report of 1841, that "their wages are "considered the best of any staple trade in the kingdom." (C. 4.)

228. Mr. Longe's summary of the wages of "a good workman" for a full week's work is that it amounts to 36*s.*; out of which sum he has to pay about 8*s.* to his two boys. Saucer-makers and cup-makers employing three or four boys would pay them about 9*s.* or 10*s.*, but would earn more in proportion.

229. The weekly earnings of the boys, according to Mr. Longe, are as follows:

		s.	*d.*	*s.*	*d.*
Boys from	9 to 11 years of age	1	6 to 2		6
„ „	12 to 14 „ „	3	0 to 5		0
„ „	14 to 15 „ „	6	0		

230. It thus appears that even if it were necessary for the men to increase the wages of the boys without being able to secure for themselves a corresponding increase, the actual amount of their earnings is so considerable that, were there no other resource open, it would not be unreasonable to expect that that increase should be paid by them.

231. But there are resources which the application of the Factory Act to the potteries would in all probability be instrumental in bringing about.

232. These resources are the following:

1. The Factory Act, by limiting the labour of the children and young persons to factory hours, would make it necessary for a large proportion of the men to conform to those hours. This would at once put an end to their present habit of wasting one or two days or more at the beginning of the week, and crowding their week's work into the last few days of it. The long hours and severe labour resulting from this, by producing exhaustion, tend directly to the use of stimulants, and to the consequent squandering away of a large proportion of the weekly earnings. If regularity of hours produced (as there is good reason to expect they would among a population so well disposed and so comfortably off as that of the potteries,) more regular habits or less expenditure on stimulants, the wages of the boys might be increased without any deduction from the real comforts of the men and their families. Indeed the more probable general result would be, in the words of Mr. Longe, (p. 8), and giving the opinion of both parties, masters and men, that "more work would be done if the men were compelled to work only between "6 a.m. and 6 p.m."

233. 2. It is asserted by many manufacturers that, in case of necessity, it is quite within the power of the employer to give a higher rate of payment to the men even under the present circumstances of the trade. These witnesses are of opinion that, even as at

* "In all but one of the National Schools under inspection in the potteries the mass of the scholars are under 9 years of age." . . . In the whole of the schools under inspection in the potteries only 13 per cent. of the children are above 10 years of age.—Mr. Sandford's Statement (p. 24).

present conducted, their trade has so firm a possession of the foreign market that a higher price is attainable by the manufacturer for his ware if he chooses to demand it.

234. Mr. Thomas Forester, manager of the firm of Messrs. Lockett and Cooke, china and earthenware manufacturers, Hanley, states (p. 15),—

"I think that the British manufacturers are themselves to blame for the low price of common earthenware goods. I do not think any foreign competition would prevent the masters getting a higher price if they would only act together. No one can carry on an earthenware manufactory without a considerable capital. The present system is to pay high wages at the expense of the health of all the workmen engaged in the manufacture, *i.e.* the potters and their boys. I mean that the men only think about getting high wages, and do not care about the health of either themselves or their boys. We have 16 jiggers and 11 stoves used for earthenware. I think if manufacturers would combine and get a higher price for their earthenware goods, they could afford to introduce improvements as to the stoves and the ventilation of the workshops, which would be of enormous benefit to the operatives."

235. Mr. G. Mountford, earthenware manufacturer, Fenton, states (p. 15),—

"As a rule, platemakers cannot get boys over 13, because they would cost too much. The men could not pay more unless they had higher wages. The master could not afford, according to the present list of prices, to pay more money to the platemaker. That rate could be raised by a combination among manufacturers (p. 64). I know that no other manufacturers in the world could prevent the Staffordshire potters raising the price of their ware, even in foreign markets, if they were to combine to do so. I think that the price of ware, as paid to the workman for making it, is higher than it used to be, as a rule, but the price which the purchaser pays the manufacturer is lower. In the manufacture of ordinary ware no money can be made now except by practical potters and economy."

236. 3. But without resorting to the doubtful measure of raising the price to the consumer, is there no further resource open which would lead to the same end in a manner not only unobjectionable but most advantageous for the public interests as well as for those of all concerned in the manufacture? It may reasonably be asked why machinery, from which the industry of the country in its various branches has derived such enormous advantages, has not been yet applied, to any but a very trifling extent, in the great and important earthenware and china manufacture of Staffordshire? The very inadequate reason given by one of the members of a leading firm at Hanley (Mr. Powell, p. 13,) is that it would disjoint the whole system of labour and cause a strike. Another manufacturer indeed, (Mr. Mountford, p. 15) expressed a doubt as to the introduction of machinery which had taken place in the potteries of the north being beneficial. Whatever may have been the result in individual cases elsewhere it would be contrary to ordinary experience to infer that the addition of the aid of machinery to the skill and experience and local advantages of Staffordshire, would be otherwise than successful in a commercial point of view.

237. Mr. Longe states (p. 8) that,—

"In some of the manufactories in Glasgow and Newcastle, steam-power is used to a much greater extent than in any of the manufactories in Staffordshire. Its application for the purpose of turning the various potters' wheels, dispenses with the labour of the children and women who are usually employed for that purpose, and facilitates the operation of the workman. Thus in the case of the flat pressers, a child is no longer required to turn the jigger; as, however, the workman is able to produce a greater quantity of ware, he generally employs an additional boy to wedge clay and carry moulds. This additional boy would probably not be required if the pugmill was used for preparing the clay. Undoubtedly a considerable reduction in the number of children might be effected by a more general use of steam machinery for these purposes.

"In some manufactories machines called 'heads' or 'jollies' are used for the manufacture of the more common shapes of round ware. The ware is formed in moulds which are turned by steam-power; a lump of clay is placed in the mould, and the cup or bowl is formed by the pressure of a piece of iron upon the clay while the mould is revolving. By means of these simple machines children and women are employed as substitutes for the skilled thrower. An extension of the use of mechanical contrivances for forming ware would probably cause a considerable addition to the numbers of children at present employed."

238. The conclusion, therefore, is irresistible, that if such machinery as has been introduced into the pottery manufacture in Glasgow and Newcastle-on-Tyne (pp. 33-34) were adopted in Staffordshire, the ordinary results would follow, namely, the cost of production would be lessened, the market for the manufactured article enlarged, a portion of the benefit in the shape of increased earnings would go to the workman and the children employed by him, while the work itself would be carried on under circumstances greatly more conducive to the health of all engaged in it than is now the case.

239. Allusion is made in the above extract to the use of the "pugmill" for preparing the clay for the potter. Important considerations are connected with this branch of the subject. At present a very laborious portion of the work of the boys consists in

The Pottery Manufacture.

what is termed "wedging clay," which consists in "beating or throwing the clay, in order "to clear it of the air which is left in after its preparation by the slipman" (Mr. Longe, p. 4). In some manufactories, Mr. Longe states, the pugmill is used for kneading the clay, and after being passed through the machine it requires afterwards very little "wedging." The cost of the machine is very little, and it may be worked either by horse or steam power; but it is only partially introduced, for no other reason than because "the workmen object to the slight deduction from their wages which some manufacturers "require" for the use of it (p 4). Wherever the pugmill is not used, either a strong boy is required by the potter to perform this as well as his other work, or if a very young boy is employed, the labour of wedging is a serious addition to his daily task. The general introduction, therefore, of the pugmill would, together with the improvements in the stove system and in the shops already enumerated, make the employment of boys of 8 years of age and upwards feasible, without injury to themselves (the average age at which they now begin to work being 10 or 11, pp. 12, 13, and 14), and would be another step in the process of substituting more economical means of performing the present amount of labour, to the advantage of all parties.

Improvement in the education of children at work in the potteries much needed.

240. That an improvement in the education of the children engaged in the potteries is much needed, is conclusively shown from the statement (p. 24) of the Rev. H. Sandford, Her Majesty's Inspector of Schools, who has been long conversant with the district. Mr. Sandford finds that, although there are evidences of progress since the inquiry of Mr. Scriven in 1841, when the number of day scholars in the whole district was only 2·4 per cent. of the population, whereas it is at present 6·6 per cent., still that this percentage is low compared with other parts of the country, the average number of children attending public elementary schools in England and Wales being 9 per cent. In one large pottery district, that of Longton, containing a population of upwards of 16,000, although about 7 per cent. of the children are in schools of some kind, there is not one public elementary school, *i.e.*, a school under Government inspection. Of 256 children present in one Sunday school, Mr. Sandford states that 138 could not read the Testament, and 127 could not write their names. "Most of these untaught lads and girls were "mould runners, jigger turners, and paper cutters" (p. 25), and in some ragged Sunday schools which Mr. Sandford visited, attended almost exclusively by young potters, of 70 present 52 were unable to read the Testament, and about 30 were reading monosyllables (p. 26). Mr. Longe (p. 6) examined in different manufactories 243 children, of whom an average of 48 per cent. could not read. The need, therefore, of the provisions for education which make a part of the half-time system, is apparent for a mass of children among whom elementary instruction is so partially diffused; and it is satisfactory to learn, on the authority of Mr. Sandford, that the improvement which has taken place in the pottery towns within the last eight or nine years, consists "in the employment of better "teachers, the establishment of fresh schools, and the higher standard of intelligence "among the children" (p. 25).

241. No individuals among the pottery population are more interested in the advance of the standard of intelligence among the children than the workmen, who so much depend upon the children for the satisfactory performance of their work. They are indeed so absolutely dependent upon them, that if a boy leaves his work, the potter is unable to proceed. The irregularity and indiscipline among the boys is pointed to throughout the evidence, as often a source of serious interruption to the potters. The moral effects of education upon the boys would be as valuable to the men as the intellectual. While attending day school with regularity, either for half-days or on alternate days, as might be found most convenient (and the latter would probably be the most suitable, considering the nature of the employment), the boys would be learning habits of order and industry, and it would soon be found that the discipline of the workshop was rendered more easy by the discipline of the school.

"Shipping orders," &c. objections answered.

242. The last of the three objections to the half-time system, adverted to at p. xxxvii., is that in consequence of the varying annual orders from the employers, the men do not know with any certainty how many boys they may require at any one time. The case is put thus by one of the witnesses, Mr. J. W. Barlow, earthenware manufacturer, Longton (p. 19):—

"We are sometimes compelled to work overtime to supply a shipping order. A man charters a vessel and then sends us an order for goods to be provided by a certain day, when the ship sails. These shipping orders form the principal part of the earthenware trade. The Longton manufacturers are not so much engaged in this trade as others."

243. It is thus also stated by Mr. Malkin, earthenware manufacturer, Longton (p. 19):—

"Generally our men work from 6 to 6. We do not lock up till towards 9. I should say our jiggerers worked three nights in the week to 7½ or 8. If there was an absolute law that the

children employed by the men should not work after 6, if the men worked regularly between 6 and 6 during the first five days of the week, it would be better for the children, the men, and the masters. At the same time I do think that it is necessary, in case of certain orders, that we should be able to work after that hour, and even during the night. We should never employ the same hands during the night. I should approve of a law which compelled children who worked in the day to give over at 6, but which at the same time allowed us, when necessary, to employ a fresh set of men and boys for the night, who had not worked anywhere in the day." The Pottery Manufacture.

244. The unexpected receipt of orders, whether for the foreign or the home market, is urged by the manufacturer as the excuse for working over-time, and by the man as an objection against the half-time system, as in his case it obliges him to have "a reserve" of boys whom he can call upon on such occasions.

245. Again, Mr. Green, earthenware manufacture, Longton, states (p. 20),—

"If we have an order for a particular kind of goods that can only be made on particular jiggers, we must work those jiggers at night as well as in the day in order to complete the order. We should always have a fresh set of boys, and generally a fresh set of men too. It is only in cases where goods of a particular kind are required, and where very little time is given us to make them."

246. It is almost superfluous to say that this is an argument which has on various other occasions been shown not to be tenable. When it becomes known that the law interposes an obstacle to the execution of an order, unless a longer time than hitherto be given for it, the longer time will be given. Whatever deviations from the strict letter of the Factory Act, with regard to hours of work, may have been found necessary in some other branches of industry, we find no special grounds for any such deviations in the case of the potteries. Mr. Baker, Inspector of Factories, thus expresses himself on this subject in his report for October 1862 (p. 54),—

"With respect to the 'loss of trade' by the non-completion of shipping orders in time, I remember that this was the pet argument of the factory masters in 1832 and 1833. Nothing that can be advanced now on this subject could have half the force that it had then, before steam had halved all distances and established new regulations for transit. It quite failed at that time when put to the test, and again it will certainly fail should it have to be tried."

247. At present, in the pottery manufacture, a potter may, in consequence of a change in the kind of article he is required to make, find that he wants an additional boy or two to assist him. He is accustomed to make these changes now as often as the occasion demands it, however suddenly it may arise. The boys in "reserve" are at hand somewhere; not very probably, as it would appear by the statistics of education in the district above quoted, in the day school. Under the half-time system the manufacturer would find it necessary to make some changes in the mode of delivering out work to the men, which would introduce a greater degree of regularity into the number of boys employed by each. Difficulties might no doubt at first be experienced, "but none," in the words of a manufacturer of the district, "that might not be overcome." And Mr. Elijah Jones, valuer, Hanley, speaking of the half-time system, gives it as his opinion that,—

"If some compulsory enactment of that kind were made, it would be almost certain to lead to the adoption of some improvements in the drying process, so as to make the work of the attendants upon the plate and saucer makers less injurious" (p. 31).

248. Upon the question of the applicability of the half-time system to the potteries, much public discussion has taken place at various meetings in the district before and since Mr. Longe concluded his inquiry. These discussions have elicited the fact that, although many employers and others whose opinion is entitled to great respect either "do not see their way clearly" to the adoption of the half-time system, or incline to prefer the plan of restriction of age before commencing work, coupled with a certificate of education, yet some employers and managers of works hold the opinion that the half-time system might be adopted without much inconvenience even at the commencement, and ultimately to the great advantage of all parties. Meetings in the potteries on the half-time system.

249. At a meeting held at Hanley on the 27th December 1862, the chairman of which was Mr. Alderman Boothroyd, Mr. E. J. Ridgway, a large manufacturer in the district, stated that he,—

"Thought the plan of limiting the age and insisting upon a certificate of education would have a tendency to drive boys away from the trade; but if they adopted the half-time system, they might have young children, and they would find plenty who would be glad to work half days. The moulders were not the only class of children in the manufactories. There was a great number of cuppers who had very long days; and there were the burnishers, to whose branch of the trade they could put children of very early age, and if they went to school part of the day and worked part of the day, it would be a very nice employment for them. If they waited for children to be educated before they employed them they would have to wait a long time for them."

The Pottery Manufacture.

250. The chairman of the meeting said that "the half-time system would put them in "as good a position as they could require, and give them as good a supply of children "for work as they had now."

Superfluous number of boys now kept in certain branches.

251. Mr. C. Heath, also a manufacturer, called attention,

"To the evils resulting from workmen having an unusual number of boys to assist them. He knew of cases where plate-makers had two boys, and cup-makers three and four and sometimes five boys each. By employing so many boys men were deprived of their share of work. He thought manufacturers ought to put a stop to that practice, and to insist upon journeymen doing their proper share of work. One man would have as many as six boys to help him, and they knew that boys could not do the work so well as men. Mr. Heath, after referring to some of the evils attending the early employment of children, expressed his approval of the half-time system, and said if manufacturers would only allow men to have a sufficient number of boys and no more, there would be a surplus which would go far towards meeting the increased demand under the half-time system. Under the old system, with one boy to a man, the work was done much better than it is now, with several boys to a man. At some manufactories boys of any age were taken, were apprenticed early, and then when out of their time were not allowed to work as journeymen for perhaps two years, an evil which was attributable to the existing system. He saw no difficulty in carrying out the half-time system. He also mentioned a case, adverting to the superfluous employment of children, of a cup-maker who had six boys to help him, and who received 5*l.* or 6*l.* a week wages."

252. Mr. Hackney thought the number of boys ought to be limited to two a man.

253. A conversation, originated by some remarks of the chairman, elicited the general opinion that men who had more than an ordinary number of boys to help them, as a rule turned out inferior work.

254. Mr. Alfred Fenton said the number of boys employed differed very much at different manufactories. He formerly knew a man who had six boys under him, and he earned wages enough to be able to pension off himself and his family for life. He worked as if it was a question of life or death, he was asthmatical at 34, and was worn out and emaciated before he was 40 years of age. He also drank a good deal. There were others who only required two boys, who did their work well, got good wages, and brought up their families respectably. In many manufactories the flat pressers only had one boy.

255. On the subject of this habit of some of the potters, of employing a superfluous number of boys, a manufacturer subsequently caused to be forwarded to us the following statement,—

"For plate-makers two boys are necessary, but three are sometimes employed. For saucer-makers two boys are sufficient, but some employ more. For cup and bowl-makers two are sufficient, but men wishing to get large wages have four, but it is not advantageous to either master or man."

256. Mr. Fenton added to what he had before said that "he did not know how the "half-time system would act. He saw some difficulties in the way, but thought they "would very likely vanish when they came to be grappled with."

257. Mr. Ridgway also stated it as his opinion that if the half-time system were "adopted it would be a great benefit to the potteries."

258. In addition to these opinions a letter bearing the honoured name of Wedgwood was read to the meeting by Mr. Sandford, in which Mr. Wedgwood stated, in reference to the two plans under consideration,—that of requiring a certificate of education at a certain age as the condition of being permitted to work, and that of the half-time system,—that "either would be a benefit to the children, neither would be impracticable, nor would "any master have a right to complain. As either would cause a good deal of trouble "and annoyance at the outset, he would say, take the one that was best for the children."

259. The half-time system was in point of fact at one time practised, with regard to a portion of these children, by the Messrs. Minton, at their works at Stoke-upon-Trent, and with satisfactory results. Mr. Hollins, manager of those works, stated to Mr. Sandford that,—

"Some years ago, when we made large 'pitcher' buttons we had many children in our service, towards whom we acted on the half-time system; the children worked half-time and went the other half to school, and the result was certainly good for them, and not injurious to us." (Statement by the Rev. H. R. Sandford, Assistant Inspector of Schools, made before the Chamber of Commerce at Stoke-upon-Trent, September 1st, 1862, on the education of children employed in the potteries, p. 11.)

260. And in this same pamphlet, Mr. Sandford, after adducing proofs of the satisfactory working of the half-time system where it has been applied, quotes the opinion of Mr. Walker, of Bradford, that if applied to the potteries,—

"Many of the better class of parents who keep their children at school entirely would be glad to let them work if they saw how they might be learning habits of industry without their mental culture being neglected; and the more so if some of the plans that have been devised to prevent the evils caused by the children running in and out of the hot drying-rooms could be generally carried out.'

The Pottery Manufacture.

261. The most important meeting on this subject took place on the 27th December of last year at the railway hotel, Stoke-upon-Trent, at which the Earl of Harrowby presided. The object of the meeting was to elicit the opinions of the leading manufacturers of the neighbourhood upon the question of child labour and education, with a view to ascertaining what measure would be most suitable to the circumstances of the potteries.

262. Of the two plans proposed for consideration, the half-time system and that of the restriction of age coupled with a certificate of education, the supposed difficulties in the way of the adoption of the first were stated by Mr. Moore. "The greatest objection, if "any, to the half-time system," he thought would be raised by the workmen, who, as the boys were associated with them from morning till night as helpers, would not like to have two boys to deal with instead of one. The workmen often have at present much difficulty with their boys in making them regular and punctual at their work; when not so, the work must stop until the boy arrives. There is also a skill and aptitude acquired by a well-trained and steady boy, which is valuable to the workman. To this the answer has been already given,—that there is every probability that boys accustomed to the training of a good school in conjunction with his work would be both more regular in his attendance on his work and more skilful at it. Mr. Moore suggested that the more acceptable plan to the man would be to restrict the age of employment to 10 or 11, coupled with an education certificate. But it was pointed out by speakers at that meeting, as it has been on several occasions elsewhere, that the supply of boys would be at least as much if not more limited under that plan than under the half-time system, which would permit children to begin to work at 8 years old; and that, moreover, a restriction to 10 or 11 years might often act injuriously not only to the children themselves but to many parents.

263. Mr. E. J. Ridgway's opinion upon this subject, as stated at that meeting, was as follows:—

"He guarded himself from expressing any very decided opinion, but remarked that it struck him forcibly that if they were to restrict boys from coming to work until they are 12 years of age, they would more or less be running about the streets, to the annoyance of parties and to their own injury, which would not be the case if they were employed half-time and went to school the remainder. He would have the gentlemen present to consider whether it would not be better to adopt the half-time system than to restrict the time when boys and girls should begin to work. Whether they did the one or the other the number of children would be the same. They were told that the scarcity of children was very great, but he had no doubt that if children were allowed to go to work on the half-day system, making about three days per week instead of being employed continuously, the parents would be induced to send them, and the market would become more abundant."

264. At a subsequent meeting at Longton, on the 17th January of this year, Mr. D. Sutherland, a working man, states,—

"There was also another point which they should consider. Supposing a man with a wife and six children, who earned 16*s.* or 18*s.*, or it might be 20*s.* a week, and there were many such in the potteries; how was he to do if his children were not allowed to go to work till they were 10 or 11 years old?"

265. And Mr. Knight (manufacturer), at that meeting, said,—

"They had many young children employed in burnishing and painting, who could do the work as well as older ones, whereas by restricting the age merely, as now advocated at Stoke, by Mr. Moore, of Hanley, Mr. Maddock, of Burslem, and others, they would throw those children out of employment altogether."

266. Mr. F. Bishop (manufacturer), at the meeting of 27th December, stated that he thought a change had taken place in the views of many manufacturers who, when the question of the half-time system was first under discussion, had felt strong objections to it. He said:—

"From inquiries he had had the opportunity of making, and thus learning the feelings of the manufacturers, who had met many times and discussed the question, he knew what was the opinion of some who were not present as well as of some who were. Some months ago, when the subject was under consideration, he believed they were unanimously of opinion that the half time system would not do. (See Mr. Bishop's evidence, p. 21, for the resolutions passed at a meeting of manufacturers in June 1862.) They then thought 'there might be a limitation to 10 or 11 years of age, but the half-time system would not do. There were scarcely sufficient children at present, the iron works were drawing away a large number, and the supply would not equal the demand, to say nothing of the great inconvenience it would be to the workmen to have to change their assistants every day.' Since then, however, he thought there had been a change in their views. The statistics which Mr. Sandford furnished them with some time ago, he thought, had considerably modified their opinions, so that now the difficulty of obtaining children seemed to tell more against a provision limiting the age than against the introduction of the half-time system, because children who were employed one half the day in one way, and the other half in another, would do both much better than if kept to one sort of

The Pottery Manufacture.

the cheap ware and common ornaments, such as learners or those not far advanced would be employed to paint; and the example of two of the most prominent manufacturers in the trade sufficiently shows that it is not desirable to employ paintresses at an earlier age than 13.

281. On the whole it may reasonably be expected that no difficulties of any moment would be found to prevent the satisfactory application of the half-time system to the potteries, and that the same unanimity which prevails respecting it, the same acknowledgment of its value, and the same completeness of attention to its requirements which is shown by the Factory Inspectors to attend it in the districts to which it has been applied, would, after a brief period, be experienced in the potteries. It may be satisfactory to add, in reference to the last point, the results of the experience of two of the Inspectors of Factories in the year 1857. In April 1857 Mr. Horner reported (p. 27) that in 1,104 factories in his district, employing 21,554 children, only three millowners were proceeded against for neglecting to have certificates of school attendance; and in October of that year Mr. Redgrave stated (p. 47) that,—

"In this county the number of children whose parents are liable for penalties for their non-attendance at school amounted in 1856 to 46,071, and of the parents of those children, eight were fined 2*l.* 10*s.* for contravention of the educational law."

Further security for education by requiring a certificate of a certain amount thereof on attaining the age of 13.

7. *Certificate of Education.*— 282. It has been shown by the reports of the Inspectors of Factories that when the education clauses of the Factory Act were first put in force many employers discharged at once as many children as possible under 13, in order to relieve themselves from the trouble of attending to the requirements of the Act.

"I have," says Mr. Redgrave (October 1858, p. 42), "in a former report drawn attention to the fact that upon the introduction of the half-time system the result was, not the employment of twice the number of children, but their diminution to nearly one half."

283. In the course of the inquiries that have been instituted by us into this and some of the other employments included in this Report, opinions have been expressed by many of the masters, that rather than incur the trouble and risk incident to the employment of children under 13, if the Act was applied to their branch of business, children under that age would not be employed. The statement of one of the witnesses in this inquiry (Henry Doulton, Lambeth, p. 39), "If the half-time system was applied to the "pottery trade we should not employ any boys under 13," is an example of this prevalent desire, wherever it could be carried into effect. (See also 175, 342, 423–5, 454–461.) Also in the case of the paintresses just adverted to, some of the principal employers in the potteries find it advantageous not to employ them earlier than 13. To the extent that this example might be followed in the pottery manufacture, the responsibilities of employers in regard to the education of the children under 13 would be avoided.

284. Again, it has been distinctly proved that the requirements of education under the Factory Act leads a large proportion of parents to omit to send their children to school until the age of 8, when, if they go to work in a factory, the Act makes attendance at school imperative. Mr. Baker, in the propositions quoted above (p. xxxiv) from his report of October 1861, states that two-thirds at least of all half-time children have not been sent to school previously to employment. In such cases their progress is slower, and their attainments, when they have reached the age of 13, proportionately defective

285. Accordingly, Mr. Baker makes a suggestion which, if adopted in its entirety, would meet both these cases,—that of the employers who evaded the requirements of the Act by not employing children under the age of 13, and that of parents who, in view of the obligation upon their children to attend school from 8 to 13, had neglected to send them to school before 8, to their manifest injury. The suggestion is similar in principle to the recommendations on this subject urged by Mr. Senior, in his "Resolutions and "Heads of Report," (London, 1860, p. 131), and supported by the opinions of the Rev. J. P. Norris, and from other experienced inspectors of schools. Mr. Baker's suggestion (p. xxxv) is,—

8. "That it would be desirable to require from all children a certificate of a certain minimum amount of education previous to employment, (*i.e.*, at 8 years of age,) and a certificate of a certain maximum amount thereof on attaining the age of 13; in default of which the education begun during the half-time employment should be carried on to a period not exceeding 16 years of age at some night school, until the required maximum amount of education be attained."

286. If it should be thought that the time is not yet arrived for enforcing the salutary regulation, that no child of 8 years of age should be employed at wages-yielding labour without a certificate of a minimum amount of education, the result of our inquiries, in reference not only to the pottery manufacture, but to other occupations included in this Report, is to justify us in recommending, that in all the employments included in this Report to which the Factory Act may be applied, there should be required of all children employed, on

attaining the age of 13, a certificate of a certain amount of education; in default of which, attendance at some night school should be required until the age of 16, or until the specified amount of education were attained. The Pottery Manufacture

287. A certificate of education should obviously be only received from a schoolmaster empowered by one of the inspectors of schools to grant it. Standards of acquirement are defined in the schedule of examination determined upon by their Lordships, the Committee of Council on Education, and published in the volume of their minutes for 1862, p. xxiii. The lower standard is Reading, one of the narratives next in order after monosyllables in an elementary reading book used in the school; Writing, copy in manuscript character a line of print; Arithmetic, a sum in simple addition or subtraction, and the multiplication table. The highest standard given in that schedule (Standard VI.) is Reading; a short ordinary paragraph in a newspaper or other modern narrative. Writing; another short ordinary paragraph in a newspaper or other modern narrative, slowly dictated once by a few words at a time. Arithmetic; a sum in practice or bills of parcels.

288. As evening schools are now common in all the manufacturing districts, and as the Committee of Council on Education now recognize them as a portion of their system (p. xxi.), the facilities for reaching the highest of the above standards of acquirement have been much increased; and the highest would be quite within the competence of children of 13 years of age, whether they had had the benefit of the half-time system or not.

289. The principle of requiring a certificate of education has been already adopted by Parliament in the Mines Regulation and Inspection Act (23 & 24 Vict. c. 151.), the 2nd section of which permits boys above the age of 10 years and under the age of 12 years to be employed on the condition of obtaining a certificate of education of a certain defined amount from a competent schoolmaster. (See also 175.)

290. It is pleaded against the application of the factory legislation to the potteries that "as the children are employed by the men and not by the masters, the masters could not "prevent the men evading the law." Mr. Longe represents this argument as follows :— Responsibility of employers as to observance of the Act, how guarded

"The shops in which the boys are employed are so numerous and detached that it would be very difficult for the employer or his manager to enforce the observance of the law" (p. 9.)

291. We are informed that the circumstances are the same, both in the wool and cotton manufacture. In both, vast numbers of the men employ and pay the children who work for them, and there is no difficulty in applying the law to them.

292. All that is required of the employer is that he shall use due diligence to enforce the execution of the Act. The clause of the Act upon this subject is as follows :—

"The occupier of a factory in which any offence has been committed is, in the first instance, liable to pay the penalty, but may have any agent, servant, or workman whom he shall charge as the actual offender, brought by summons before the justices, and if, after the offence has been proved, the occupier shall prove that he had used due diligence to enforce the execution of the Act, and that the agent, servant, or workman committed the offence without his knowledge, consent, or connivance, then such agent, servant, or workman shall pay the penalty instead of the occupier. When it appears to the inspector or sub-inspector that the occupier has used due diligence to enforce the law, and that an offence has been committed without his personal consent, connivance, or knowledge, and in contravention of his orders, the inspector or sub-inspector must proceed against the person whom he shall believe to be the actual offender, without proceeding against the occupier."—7 Vict. c. 15. s. 41.

293. It would be reasonable in the case of the potteries to follow the precedent of the Factory Act of 1833, by which the portion of the Act relating to the employment of children was brought into operation by three successive steps of 6 months, 18 months, and 30 months from the passing of the Act, and allowed for the first period children of 11 years of age to be employed full time; for the second period, children of 12 years; and finally, at the third period, fixed the actual limit of 13 years of age as that at which full-time labour is permitted (3 & 4 W. 4. c. 103. s. 8.) At the end of that period of 30 months the clause suggested at p. xlvi. should come into operation, which would require of children of the age of 13 a certificate of education. Act should be introduced by successive steps.

294. The potteries out of Staffordshire do not require in this place any detailed description. Mr. Longe estimates the approximate number of persons employed in them as about 8,000 (p. 7). He adds that the general system of employment, the hours of labour, and the hours of meals, are much the same (with the exception of the dinner hour in Scotland) as in Staffordshire. The need of education for the young is in many of the localities as great, and in some, as "in Glasgow, Newcastle, and in the potteries "on the Wear," greater than in Staffordshire (p. 8), though their numbers are small. The evidence which Mr. Longe obtained as to the effect of the employment upon the health of the operatives "accorded in the main" with what he had obtained in Stafford- Potteries out of Staffordshire.

The Pottery Manufacture.

shire. Many employers expressed "great disapprobation of the practice of employing "children at a very early age, and were anxious they should be educated before they "began to work" (p. 8). Mr. Longe's conclusion, therefore, may, we think, be considered satisfactory, that "any regulations which were practicable in the Staffordshire "district could easily be carried out in all the other manufactories" (p. 10).

II.—The Lucifer Match Manufacture.

The Lucifer Match Manufacture.

State of manufacture at time of inquiry in 1840.

295. This manufacture, although stated by the Children's Employment Commissioners of 1840 in their Second Report (1843, p. 140) to be "of considerable importance from "the number of children and young persons employed in its different branches," and requiring regulation on account of the frequent night-work, the ignorant and neglected state of the children, and the unwholesomeness of portions of the work, had not at that time developed the features which now invest it with a grave and painful interest. At that time the manufacture was, comparatively speaking, in its infancy. It dates its rise only from the year 1833, when the discovery was made of a mode of applying phosphorus to the match itself. And it was not until the year 1845 that the surgeon of an infirmary at Vienna called medical attention to a most painful and loathsome disease found among the workpeople in the phosphorus match manufactories, now known as "necrosis of the jaw," or "the phosphorus disease." Numerous instances of this disease have occurred among the persons engaged in this branch of employment in this country. The manufacture has extended from London, in the most thickly-peopled parts of which there are several factories, to Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle, Glasgow, and a few other places. In all of these, not only has the fact been fully recognized that many of the processes, unless the most careful precautions are used, seriously affect the general health of the persons employed, and produce, or encourage any predisposition to various known disorders (pp. 45–49), but the "jaw disease," as the workpeople themselves call it, has developed itself in cases varying in number according to the number of persons employed, and the neglect of the means of prevention,—those means being judicious internal regulations, proper ventilation, and provision for and attention to cleanliness.

Peculiar disease since developed; the "jaw disease."

Medical Evidence, relating to.

296. Dr. Letheby, Medical Officer of Health for the City of London, in his lectures delivered at the London Hospital in 1848, was among the first to call attention in this country to this disease. He refers to instances of persons being attacked with it. The extract given by Mr. White (p. 41) from one of those lectures, describing the effects of the disease, shows it to be one of the most terrible that can afflict humanity. Mr. John Pegge, Fellow of the Royal College of Surgeons, and surgeon to the Newton District of the Prestwich Union, who has been in practice for 30 years in that district, states (p. 49) that—

"The sufferings of a patient in the earlier stages of the disease, and until it has run itself out, leaving the jaw quite dead and exposed, are intolerable. He will take almost any amount of narcotics with comparatively little effect."

297. Dr. Letheby states (p. 46) that when the pain in the jaw has become confirmed, and followed by inflammation of the jaw, abscesses about the gums, and, finally, the necrosis of the jaw, it is in many cases followed by death; in others by the removal of the diseased jaw by a surgical operation. The Messrs. Garman, surgeons, medical attendants to the members of a club consisting of persons in the employ of Messrs. Bell and Black, of Stratford, E., one of the largest lucifer match manufacturers in the trade (employing 238 persons, of whom 174 are under 18 years of age) state (p. 47)—

"We should say that the majority of those engaged in this factory, *i.e.*, of those who have worked there for any considerable period, suffered more or less caries (decay), and necrosis (death) of the teeth."

298. The late Mr. Edward Stanley, of Brook Street, Grosvenor Square, the author of a work on the human bones, in a letter addressed to us, dated April 2nd, 1862, states that—

"During the last fifteen years, or it may be longer, a number of cases of disease in the jaw have been admitted into St. Bartholomew's Hospital, occurring in young persons employed in the manufacture of lucifer matches, to which occupation the serious mischief in the jaw was evidently owing, as the consequence of deterioration of the general health and exposure to the vapour of phosphorus acid diffused through the air of the rooms of the manufactory. Inflammation, followed by the death of the jaw-bones, ensued from such exposure, and in the progress of these cases the loss of portions of the jaw, occasionally of the whole lower jaw, very seriously injured the parties so occupied for the rest of their lives."

299. Mr. David Waite, of Mile End Old Town, who has been in the lucifer match business for 20 years, states (p. 68) that he knows 14 or 15 who have been attacked with

the jaw disease, many of whom died of it. Mr. Miles Askew, of Southwark, has known 8 or 12 who had the disease "and had to go through an operation and have their jaw out. "Some have died." Instances of the jaw disease are mentioned at Norwich (p. 77), Newcastle (p. 82), Manchester (p. 84 and 87), and elsewhere; and throughout the evidence there are numerous cases of children and young persons who complain of pain in the teeth and face, and show unmistakeable indications of the approaches of the disease. The Lucifer Match Manufacture.

300. The places of work where this manufacture is carried on present very marked and decided differences, with corresponding differences, equally decided, in the results upon the health of the workpeople, and their liability to this particular disease. The places of work.

301. Where the places of work are small, ill-arranged, without proper separation of the various branches involving the liability to this disease, without adequate ventilation, or any due attention to the means of cleanliness, and with a neglect of the use of well-known preventives, the general health of many of the workpeople is more or less seriously affected, and the symptoms develop themselves of the approach of this afflicting malady.

302. Where, on the contrary, the places of work are well-arranged and airy, and where the employer is careful to lay down, and to cause to be attended to, sanitary regulations, which are the best safeguards against the danger to health attending some of the processes, the liability to the disorder is greatly diminished, and, in many cases, seems to have been almost entirely removed. It is satisfactory, therefore, to find, that this terrible infliction is, to a very great extent, if not entirely, within the reach of measures of prevention.

303. Mr. White visited and took evidence in 58 places of work in London, and various parts of the kingdom. Of these all but 10 belong to small manufacturers, having but few children or young persons in their employ. Our tabular forms were filled up by the whole of the above 10 firms, and by 15 others, comprising all the largest of the remaining 48. The result is as follows as regards the numbers employed:— Statistics of persons employed.

	Number of Firms.	Total Number of Children and Young Persons employed.	Average Number per Firm.
Firms employing under 10 children and young persons	7	44	$6\frac{2}{7}$
Firms employing above 10 and under 20 children and young persons	5	76	$15\frac{1}{5}$
Firms employing 20 and under 30 children and young persons	3	76	$25\frac{1}{3}$
	—15	—196	$13\frac{1}{15}$
Firms employing above 30 children and young persons	10	1,417	$141\frac{7}{10}$
Total children and young persons employed by 25 Firms	25	1,613	—

304. It thus appears, in regard to the children and young persons of whom we have an account, that there are employed—

By 10 firms	1,417
By 15 firms	196
	1,613
To these may be added, as a probable estimate, for those in the employ of the 33 firms which made no return	200
Giving a total of children and young persons employed in the whole trade	1,800
The total number of adults, male and female, employed by the 25 firms which made returns was	696
If there be added as a due proportion for the 33 which made no return	154
The total number of persons of all ages employed in the lucifer match manufacture in the kingdom may be approximately stated at	2,650

305. This represents the number employed in premises in which phosphorus is used. It is exclusive of large numbers employed in making the boxes, a branch of the trade in many instances carried on in separate premises, or as a separate trade.

306. The 1,417 children and young persons in the employ of those 10 large firms undoubtedly for the most part perform their work under conditions rendering their exemption from the consequences often attending such work much more probable. Nevertheless in five out of the ten largest and best managed in the trade, circumstances and arrangements were observed by Mr. White which exposed certain portions of the workpeople to Injurious state of a large proportion of the places of work.

The Lucifer Match Manufacture.

the attacks of the disease, against the continuance or recurrence of which circumstances or arrangements, specific regulations by law would be the only security.

307. Of the 48 small places of work Mr. White noticed only 14 as airy, clean, and arranged in such a manner as to provide some safeguard against the disease. The whole of the rest were conspicuous for the contrary, and their state inevitably exposed the persons working in them to the worst evils attending that species of employment.

Processes of the manufacture.

308. The processes of "mixing," "dipping," "drying," "cutting," "rolling out," and "boxing" are those in which the largest amount of vapour is given off from the phosphorus, and in which boys and girls, and young persons, are most exposed to inhaling it. In the "mixing" "little boys are often employed to stir the composition, a tedious "but light labour, and have their faces for a long time, perhaps half an hour at a time, "close by or actually over the composition." (Mr. White, p. 43.) In the "rolling out" of the "bundle dips" (in the process of making the cheapest kind of match, in which a much greater proportion of phosphorus is used), "dense fumes as well as small particles "of the composition itself are thrown off." (Page 43.) This process is usually performed by boys.

309. Want of space and other motives often lead to the framing, as well as the processes of—

"Sulphuring, mixing, dipping, drying, cutting, and boxing, packing and storing, being brought into close contact with one another, even in the very same compartment, and that in such cases, nearly always small and ill ventilated. In proportion as this is done, the ill effect of a single process even, if it be produced by the agency of a subtle and powerful vapour, may, and in some cases seems proved to, extend to all" (p. 44).

310. The cause of the number of manufactories on a small scale is the small amount of capital required to carry on the manufacture. It is consequently "open to persons of very "slender means, character, or intelligence, who are little able, if they cared, to regard the "welfare of their people." Mr. White adds, however, (p. 45) that,—

"The small, almost garret, manufactories are much less numerous now than they are reported to have been, and the business, owing to the demand for the article produced, seems passing to men of greater means and mind, and the increasing application of machinery no doubt tends in the same direction.

"It will be seen that this is the feeling of the better sort of manufacturers themselves, and leads them to welcome rather than shrink from any legislation, which though it might slightly fetter their own freedom, would have the effect of raising the character of the business as a whole.

"Many even of the poorest but well disposed of them say that the present condition of things is very unsatisfactory and ought to be mended."

311. The instances of large and thoroughly well arranged factories in this branch of business are, happily, sufficiently numerous to prove that it is possible, consistently with commercial success, so to carry on the lucifer match manufacture, as to reduce almost to a minimum the probabilities of the deplorable results upon the human frame, which have hitherto attended some of its processes.

Satisfactory sanitary arrangements in most of the large places of work.

312. The following points are those which are more or less aimed at in factories in which sanitary arrangements have been most carefully considered and provided for:—

1. The complete separation of those rooms in which the phosphoric fumes are given off, from the rest, and from each other.
2. Ample and judicious ventilation, assisted by fans or other mechanical means.
3. Provision for cleanliness, by means of a full supply of water, and soap and towels, easily accessible to all the workpeople.
4. Strict regulations against meals being cooked or eaten on any part of the premises where phosphorus is used.
5. Frequent washing and cleansing of the places of work.
6. Regulations as to the use of turpentine, the vapour of which checks the evolution of phosphoric fumes, and as to the use of alkaline drinks, and alkaline washes for the mouth,—such as a weak solution of carbonate of soda—for neutralizing the effects of phosphoric fumes on the human body. (Dr. Letheby, p. 46.)
7. A regulation providing that "dippers" should only dip on alternate days; a regulation which should also embrace all the children or young persons employed. (Messrs. Garman, p. 48.)

313. Messrs. Bell and Black, of Bow Bridge, Stratford, E., have carried into effect many of the above arrangements and regulations.

314. Mr. White states (p. 54) that,—

"This is a carefully arranged factory, consisting chiefly of a long line of buildings of one story, well ventilated by side windows and doors, as well as frequent skylights, all opened, fronting an airy yard. There are three dipping rooms, all well ventilated; two, lately built, especially so; the nearest of

them at a distance of 30 feet or more from the nearest entrance to the main building. Adjoining to these are three drying rooms. The sulphur dipping room, again, stands by itself. The whole place feels fresh and airy. The proprietors seem to have taken great pains to make the place and employment as wholesome as possible. Some of the modes are more particularly referred to in the statement of Mr. Bell and of one or two of the other witnesses." . . . . "At 1 o'clock all the working rooms were cleared at once for dinner, the people returning just at 2, as I left. Most went home or out, a few who lived at too great a distance remaining about the place. They are never allowed to eat in any of the dipping rooms, or the stove or drying rooms." . . . . "The main rooms, three in all, are very long; and though different parts of the work, such as filling the frames, putting the matches in boxes, and packing the boxes, as well as the making and cutting the wax taper to be afterwards dipped, have not each a distinct room, they are carried on as far apart as they can be in the same room. It is intended to separate them entirely, and I was asked if I could suggest any other improvements." . . . . "All the children are employed and paid directly by the proprietors." . . . . "Altogether, this seems a most satisfactory establishment. The most important feature seems to be the system of reliefs from the noxious parts of the work."

315. Mr. S. A. Bell's evidence is of much interest and importance. A portion of it is as follows:—

"*Mr. Samuel Alexander Bell.*—I have been engaged in this business 23 years and am a partner in the firm. I took these premises in order to have the space required by the Building Act. I was aware that the work was of an unwholesome kind, unless great care were taken, and I have therefore taken all possible care in the arrangement of the buildings, nearly the whole of which were built by myself, and in other ways.

"Until two years ago I had never had any case of the phosphorus or jaw-disease amongst our workpeople; and I believe that we were the only large employers who could say so. After this two cases occurred: one very slight and cured in two or three months, the other more serious. This man has lost his jaw, but is now recovering and will soon be out of the hospital, and but little disfigured. This case was kept from our knowledge for a long time, or we should not have allowed the man to go on working.

"The occurrence of these cases led us to make further inquiries as to any possible precautions. I heard that turpentine was a great absorbent of the phosphorus fumes, and made the dippers and the boys who attend to them and the stove (or drying) room wear little cans of turpentine round their necks. I had also found that whitewash had a great effect in keeping the places fresh, and we have had the dipping rooms whitewashed two or three times a week. Having heard lately that soda is very useful as an antidote to the phosphorus we make the dippers rinse their mouths out with soda and water every time they finish a set of dipping. But we have great trouble in enforcing these precautions, and have frequently to punish the neglect of them by small fines.

"For nearly two years we have also adopted the plan of not allowing the dippers to dip on more than four days in the week, and employing them in the open air on the others, and also of making the boys who carry the frames from them to the drying rooms, or who are about the latter, work at some other employment every other week.

"We also had two new and very airy dipping rooms built, so as to have three instead of only one, and use iron dipping slabs instead of stone, as iron absorbs the vapour so much less.

"No other case of disease has occurred, and I am in great hopes that after all these improvements we shall be entirely free from it.

"I have been in some of the best lucifer manufactories in Paris. They were not well arranged, being much like our inferior ones in England; but that was 10 years ago. I do not know what improvements they have there now.

"I feel convinced that the system of changing the employment of the dippers and drying-room boys is absolutely necessary to preserve their health.

"It is also very important to separate each different branch of the work as much as possible from the others in which any harm can arise. I have endeavoured to carry this out as far as I can. . . .

"I have a general idea of the Factory Laws. I do not think any regulations of that kind would in the least affect our business. All our hours, meals, &c. are quite regular already. I do not like employing young children, say under 12. They are often more loss than profit."

316. Of the works of Messrs. Bryant and May, Fairfield Row, Bow, the patentees of the new safety match, Mr. White remarks "there is nothing unpleasant or objectionable here."

317. The peculiarity of the match manufactured by this firm is that they do not use the white or common phosphorus (which is the kind from which all the evil emanates) at all.

"The only phosphorus used is not in the match, but applied to the surface of the outside of the box, on which the match is rubbed, and this phosphorus is of the red or amorphous kind, which is said to be perfectly harmless." (Mr. William Bryant, p. 58.)

318. This process was invented by M. Lundstrom, and is extensively used in his admirably managed manufactory in Sweden (p. 58). Mr. Francis May states (p. 58):—

"No amount of friction against any substance, except that prepared for it, which is placed on the box, will make one of the patent matches ignite, nor has it any smell or any poisonous quality, nor is there any poisonous or dangerous ingredient in the prepared surface affixed to the box."

319. This factory is remarkable for the excellence of most of its arrangements both for the health and comfort of the workpeople, and the firm would regard as beneficial any

The Lucifer Match Manufacture.

reasonable regulations or restrictions that might be judged desirable for the trade in general (pp. 57-58).

320. Most of the arrangements in the large factory of Messrs. Dixon, Son, and Evans, Newton Heath, Manchester, are very satisfactory. Mr. White states, regarding them, that—

"Stronger evidence of the practical importance and efficacy of proper arrangements and precautions in the match manufacture cannot be furnished than is given by the history of this place" (p. 84).

321. The evidence of one of the partners, Mr. Evans, upon those points, and also, as to the good results that might with certainty be expected from placing this manufacture under the provisions of the Factory Act, is very striking and valuable.

322. Similar opinions were expressed by Mr. Capper, the manager of the large works of Mr. N. Martindale, Liverpool (p. 88), many of whose arrangements for the health, safety, and comfort of the people employed are worthy of general adoption. And the same may be said of several others of the largest works, such as those of Messrs. Russell, Leeds, Mr. J. J. Longs, Glasgow, Mr. Letchford's, Bethnal Green, and Mr. Bedell's, Leicester, and a few others.

323. The history of the latter factory (Mr. Bedell's, Joseph Street, Bridge Street, Leicester,) appears to suggest the mode in which the sanitary results, which would be the objects of any legislation, would be most easily and effectually attained.

324. Mr. White states (p. 95) that this manufactory was formerly in the middle of the town, but that, in consequence of the objections of the townspeople it was removed, and, before being opened, was required to be approved by the proper officer of the Local Board of Health. Also that, since it has been in operation, it was, after complaint made in the manner pointed out by the Health of Towns Act, visited by the sanitary inspector, with the view of discovering the origin of an alleged nuisance by which the neighbourhood had been affected.

Powers of Public Health Act not sufficient.

325. The powers of the Local Government Act and the other Acts relating to the Public Health, in reference to such cases as that of this manufacture, do not extend to enabling the Local Board to act unless after complaint made; and as the injuries arising from certain of the processes of this manufacture are primarily, and almost universally, to the workpeople employed and not to the public, no such complaint is, under ordinary circumstances, likely to be made, or in point of fact is found to be made, regarding any of the arrangements which cause loss of health to the persons employed, as will set in motion the Local Board. It would therefore appear to be highly desirable to define the measures necessary for the prevention of evils which, in the case of this manufacture are the most shocking and afflicting known in any sphere of labour, and to invest some authority with the power of carrying such measures into effect.

326. In so doing, the Legislature of this country would follow the example already set by several foreign Governments in reference to this manufacture.

Sanitary precautions enforced in other countries.

327. Sanitary precautions are enforced in all places where matches are manufactured, in which the common phosphorus is used, in France, Prussia, Austria, Bavaria, and Saxony (p. 76), and in a part of Switzerland, (Appendix, p. 335).

328. "The Hygienic Rules with regard to the manufacture, transport, and sale of chemical matches," laid down by the Council of Health of the Department of the Seine, are given by Dr. Waller Lewis at p. 113 of his Report to the Secretary of State "On the "Laws and Ordinances in force in France for the regulation of Noxious Trades and "Occupations," presented to Parliament in July 1855. They enter into much detail, but their leading features appear to be as follows:—

The buildings intended for their manufacture should be detached.
The magazines and combustibles should be on the ground floor.
The following workrooms should be distinct and isolated:—

(*a*) The room for mixing the phosphoric paste.
(*b*) The room for powdering the chlorate of potass.
(*c*) The room for sulphuring and dipping the matches.
(*d*) The stoves for drying the inflammable paste.
(*e*) The rooms where the presses are emptied.
(*f*) The room for packing.

Every evening the débris of the matches are to be burnt.

329. The report of a scientific medical deputation presented to the Prussian Government (published at Leipzig, 1858), an abstract of which is inserted by Mr. White at p. 76, differs very slightly from the French rules above given. The principal additions which it makes to them are substantially the following:—

That the rooms must be washed every day on the workpeople leaving the factory.
That the regulations in force in other factories (in Prussia) relating to the young people employed shall be extended to match factories.
The manufacturer must keep a register giving certain particulars relating to the workpeople.
The register must contain the rules of health of importance to be observed, and these must be made known to the workpeople, so as to put them on their guard, especially as to the state of their teeth.
The health of the workpeople must be under the care of the official medical inspector, who must have power to enter and investigate it.
Any manufacturer who neglects any of these rules, and amongst whose people a case of phosphorus disease occurs, is to forfeit his licence.

The Lucif Match Manufactu

Under these regulations as to the health of the workpeople, and in those of Lower Unterwalden (p. 335), the salutary rule prevails that,—

"No person with decayed teeth is allowed to enter the employment, and the state of the teeth of all employed is periodically inspected" (pp. 36, 6).

330. Dr. Letheby, in the valuable evidence which he gave to us (p. 45), entirely coincides in the principle of the whole of the above recommendations, which embrace, in his opinion, "three classes of improvements."

Dr. Letheb recommen dations coi cide with the above.

The separation of the dangerous from the non-dangerous processes.
Conducting the dangerous processes in well ventilated rooms, and the observance of the strictest cleanliness on the part of the workpeople.
The use of prophylactics, or agents which will prevent the diffusion of phosphoric fumes, and their action upon the human body.

To these the Messrs. Garman add (p. 48) what appears to us an important suggestion.

"The ill effects would, in our opinion, be much diminished if the time for which persons, especially young people and children, are exposed to the influence of the phosphorus were shortened, and especially if it were interrupted by interval of entire absence. The fresh air so obtained would supply the oxygen required by the blood, and dilute the influence of the bad gases inhaled during the work. If possible the children should be employed only on alternate days. If that could not be done, an absence of half a day would be a great benefit. In cases of the chest affections of which we have spoken, we invariably prescribe for children an absence from the factory of as much as 24 hours, and as much fresh air as possible. This is allowed by the employers."

331. Many of the largest and best managed factories in this country, already referred to, have adopted of their own accord more or less systematically and completely, many of the above regulations. The whole current of testimony shows that there is no commercial or other difficulty in the way of their being imposed by law upon all.

Many of t largest factories have alrea adopted them.

332. Accordingly we recommend that,—

Recommen dations.

1. The buildings intended for the manufacture of lucifer matches should be detached.
2. The magazines and combustibles should be on the ground floor.
3. The following workrooms should be distinct and isolated:—
   (*a*) The room for mixing the phosphoric paste.
   (*b*) The room for powdering the chlorate of potass.
   (*c*) The room for sulphuring and dipping the matches.
   (*d*) The stoves for drying the inflammable paste.
   (*e*) The rooms where the presses are emptied.
   (*f*) The room for packing.
4. Every evening the fragments of the matches should be burnt.
5. The rooms should be washed every day on the workpeople leaving the factory.
6. The manufacturer should fix on a moveable board, and hang up in the entrance of every factory, the special rules for the health and safety of the workpeople adverted to below in s. 9.
7. No child or young person with decayed teeth should be allowed to enter the employment, and the state of the teeth should be periodically examined by the certifying surgeon appointed under the provisions of the Factory Act.
8. No child or young person engaged in either of the processes of "mixing," "dipping," "drying," "cutting," "rolling out," or "boxing," should be employed otherwise than on alternate days, or for other hours than those permitted by the Factory Act.

9. With a view to bringing the buildings and rooms in which the lucifer match manufacture is carried on into conformity with the above Rules, a Medical Inspector should be specially appointed, with duties similar to those proposed in case of the potteries, as described above (p. xxiv.) Such an officer, assisted, where necessary, by an architect, in the manner proposed, would afford a sufficient guarantee to the owners of the lucifer match factories that no change would be suggested without mature consideration founded

Percussion Cap Manufacture.

exhibit no reluctance to be placed under the Act. As regards the factories at Birmingham, it appears that overtime, irregularity of meal times ("eating and working" at the same time, p. 8), and objectionable hours of work, exist more or less in them; and that the owners of those factories would much prefer the factory hours, and do not consider "overtime" necessary or desirable. (Pp. 109, 112, 113, 114.) The Education Clauses of the Factory Act would, from the small number of children under 13 employed in this branch of manufacture, probably be inoperative.

362. The making and loading of small-arm cartridges is in most instances carried on in the same place of work as the manufacture of percussion caps. (Pp. 109, 111, 112.) It does not appear that it can be separated in a legislative point of view from the percussion cap manufacture.

The Government Factory at Woolwich Arsenal should be placed under the same regulations.

363. The provisions of the Act (23 & 24 Vict. c. 139) regulating the use of explosive substances, were, Colonel Boxer states (P. 116), based on his recommendations. As might be expected, therefore, the arrangements for the security of the workpeople engaged in this manufacture in the Royal Laboratory, under Colonel Boxer's direction, are of the most effectual kind. The manufacture includes cartridges and percussion caps.

364. The usual meal times are observed, and overtime is not of frequent occurrence, Colonel Boxer preferring to employ an additional number of hands.

365. The hours of work for children and young persons (of whom the numbers vary greatly, from 84 at present to 616 at a moderately busy time, and 1,200 in war time), (p. 118,) nearly correspond with those of the Factory Act.

366. The regulations for attending school differ from those of the Factory Act as to the amount of time bestowed upon it, and are under no guarantee for permanence. The children also pay more (3*d.* a week instead of 2*d.*) for a smaller amount of instruction,—8½ hours per week instead of 15 hours.

367. We have ascertained that the processes which these children and young persons perform can be learnt by them in three or four weeks.

368. Should it be the wish of the Legislature to bring this establishment into entire conformity with the regulations of the Factories Act, we believe that no practical inconvenience of any moment would arise. At a period of pressure the Government would be subject to the same conditions as those of any other manufacturer, namely, of employing more machinery, or paying higher for a larger supply of hands.

IV.—The Manufacture of Paper Hangings, or "Paper Staining."

Paper Staining.

369. Our tabular forms, circulated among the employers in this branch of manufacture, were duly filled up in all but a few instances. We are therefore enabled to present a general view of the nature and distribution of the trade, with a sufficient approximation to accuracy.

370. "Paper staining," or the printing of a pattern in colours upon sheets of paper, is carried on either by blocks applied by hand, or by rollers worked by steam.

371. The commoner kinds of paper hangings are "machine printed;" the better and more expensive kinds are, and are said to be likely to continue to be, printed by hand (p. 128, Mr. Cooke).

Local distribution of the manufacture, and number of children and young persons employed.

372. The local distribution of the manufacture, with the number of children and young persons employed, is as follows:—

Firms from which Returns were received.		Number of Children and young Persons employed.	
In London	13		420
In Manchester	4		
In Over Darwen	2		
In Blackburn	1		
	7		409
In Leeds, Hull, Glasgow, Edinburgh, and Plymouth	6		829
			236
		Add for firms from which evidence was obtained, but which made no returns	85
Firms	26	Total children and young persons	1,150

Firms engaged in machine and block printing, and persons employed by.

373. The distribution of the manufacture, as respects machine and block printing, and the number of children and young persons employed in connexion with each respectively, is as nearly as we can ascertain, the following:—

Paper Staining.

			Children and young Persons employed.		
Firms using machinery either chiefly or in part, but who also print by hand:—					
In London	6			197	
In the North	11			559	
		17			756
Firms using no machinery:—					
In London	7			223	
In the North	2			86	
		9	Add for firms from which evidence was obtained, but which made no returns		309 85
Firms		26	Total children and young persons		1,150

374. Of children there were employed,—

Males under 13	559	
Females „	84	
		643

375. Of young persons there were employed,—

Males	395	
Females	112	
		507
		1,150

376. Of the boys under 13 there were,—

Under 8 years old	4
„ 9 „ „	23
„ 10 „ „	55
Total under 10 years old	82

377. Only three girls were returned as under 10 years of age.

378. Of adults there are in the whole trade between 700 and 800 (see p. lxiii.), of whom all but a small number are males.

Amount of overtime great, chiefly with machine printing.

379. The labour of the children is not, Mr. Lord states, (p. 121), "in either branch of the trade, *in itself* fatiguing or injurious," but it is made so "by the length of "overtime;" and for the younger ones it becomes so by the length of even the ordinary full day's work.

380. The "busy months" are generally the seven between the beginning of October and the end of April. During those months the hours of the ordinary day's work are exceeded by one, two, or three, according to the demands of the business; and during the four most busy of those months the work goes on, in many instances, from 6 a.m. to 10 p.m., and even later, with but little intermission. In the North, the children and young persons employed in machine printing are, during that period, "frequently at work for "several days together from 6 a.m. to 9 and 10 p.m., without any regular cessation "for meals or other relaxation" (p. 120). In London the same practice prevails in the machine printing, "although not to so great an extent as elsewhere." In the block printing, both in London and in the North, overtime is not infrequent, although not to so great an extent, and "is attributable as much to the irregular habits of the "men, who, as piece-workers, have the disposal of their own and their children's time "to a very great degree in their own power, as to any alleged requirements of a season "trade, or to any necessity from competition to complete orders for speedy delivery at "short notice" (p. 121).

381. The effect of these long hours of work is thus described by various witnesses. J. Leach says (p. 123):—

"Last winter six out of 19 (girls) were away from ill health at one time, from over work, that is to say. . . . When we work longest they are most away. I have to bawl at them to keep them awake when we are at long overtime."

382. W. Duffy says (p. 124):—

"I have seen when the children could none of them keep their eyes open for the work; indeed, none of us could."

383. J. Lightbourne (p. 124):—

"Am 13 . . . We worked last winter till 9 in this winding-up room, and the winter before till 10. I used to cry with sore feet every night last winter."

Paper Staining.

384. G. Aspden says (p. 125):—

"That boy of mine . . . . when he was 7 years old I used to carry him on my back to and fro through the snow, and he used to have 16 hours a day . . . I have often knelt down to feed him as he stood by the machine, for he could not leave it or stop."

385. These three witnesses are in Mr. Potter's employ.

386. J. Boden, machine printer at Messrs. Heywood's, states (p. 126):—

"What is seriously injurious is the long hours in a hot unwholesome atmosphere; for eight months in the year they work here from 6 a.m. to 9 p.m., with no break for meals."

387. Isaac Cooper, at Mr. Snape's works, Over Darwen, says (p. 127):—

"There is nothing injurious in the nature of the work, it is only the length of the time; the boys get very sleepy. Our printing and our grounding machine ran night and day last winter. There were two boys then working 12 hours each."

388. Mr. Snape says (p. 126):—

"Ours is a season trade, our busy time being for six months from October to March, when we work from 6 a.m. to 10 and occasionally 11 p.m."

Legislation admitted to be necessary.

389. On the subject of overtime Mr. J. Gerald Potter, the principal partner of Messrs. Potter and Co.'s works, Over Darwen, Lancashire, thus expresses himself:—

"Upon the need that exists generally for some compulsory limitation of the hours of labour for the young in our trade there cannot be a difference of opinion; the only question is as to the form which Government interference should assume" (p. 122).

390. Mr. Smith also, the managing partner of the firm of Messrs. Heywood, Higginbottom, and Smith, of Manchester, says (p. 125):—

"The children do work a great deal too long. From 6 a.m. to 9 p.m. is much too long, and that is the case for by far the greater portion of the year . . . We work on, with no stoppage for meals, so that the day's work of 10½ hours is finished by 4½ p.m., and all after that is overtime, and we seldom leave off working before 6 p.m., so that we are really working overtime the whole year round. . . . . For all these, children and adults alike (152 children and young persons and 140 adults, p. 125), the average work of the last 18 months has been at the very least seven days five hours, or 78½ hours a week. For the six weeks ending May 2nd this year the average was higher, —eight days, or 84 hours a week. The labour, however, in machine work, is not great; it chiefly consists in watching."

391. These two firms (Messrs. Potter and Messrs. Heywood's) employ together 301 children and young persons, or upwards of one-fourth of the whole number employed in the trade. They are by far the largest "machine printers" in the trade.

392. Urged by his sense of "the need that exists" for a compulsory limitation of the hours of labour for the children and young persons in this branch of business, the gentleman above named, Mr. J. Gerald Potter, prepared, in 1861, a Draft Bill, "upon "the model of the Bleaching Works Act, 1860," which he submitted to Mr. Baker, the Inspector of Factories (p. 122).

393. This Draft Bill, a copy of which Mr. Potter has forwarded to us, but which was not introduced into Parliament, is to the following effect:—

394. After reciting that—

"It is the practice of some of the occupiers of paper staining works to keep females, young persons, and children at work during the night, and an unreasonable number of hours during the day; and whereas such practices are not necessary to the successful carrying on of such works, but are very injurious to the health and morals of the females, young persons, and children employed therein, and it has become necessary to regulate the employment of such people and to provide for the education of such children,"

and after reciting the various Factory Acts, its principal proposals are—

"§ II. That paper staining works shall be deemed to be factories within the meaning of the hereinbefore recited Acts. . Provided nevertheless that it shall be lawful to employ females above the age of 18 years, and young persons, in paper staining works for 12 consecutive hours on every working day, except Saturday, and to employ children for six consecutive hours on every working day.

"§ III. Provided also, that when by reason of fluctuations in trade, or of any extraordinary accident happening to the steam engine or main gearing of any paper staining works, time may be lost in such paper staining works, it shall be lawful for the occupiers of such paper staining works to cause such lost time to be worked up at any time during the two calendar months next succeeding the happening of such loss of time, but so that no female or young person shall, on account thereof, be allowed to work after three of the clock in the afternoon of any Saturday; provided also, that the whole time which females, young persons, and children respectively shall have been employed during any calendar month shall not exceed the total number of hours during which such females, young persons, and children respectively may lawfully be employed according to the provisions of the second section of this Act.

Paper Staining.

"§ VI. In the construction of this Act the words 'paper staining works' shall be understood to mean any building, buildings, or premises situated within any part of the United Kingdom of Great Britain and Ireland wherein and within the close or curtilage of which females, young persons, and children, or any of them, are or may be employed, and in one or more of which buildings or premises any process previous to packing is or may be carried on in or incident to the occupation of grounding, colouring, staining, or glazing or printing any pattern or patterns on any paper of the nature of or to be used for paper hangings or the like purpose, whether such processes or any of them shall or shall not be carried on by means of steam power.

"§ VII. That section six of the firstly herein-before recited Act (3 & 4 W. 4. c. 103) and so much of section 28 of the herein-before secondly recited Act (7 & 8 Vict. c. 15) as provides that notices of all time lost which is intended to be recovered, and of all time which shall be recovered, shall be hung up in the entrance of the factory, and the whole of section 30, 33, and 36 of the said last-mentioned Act shall not apply to the employment of females or young persons under the provisions of this Act; and that so much of section 28 of the said Act as provides that notices of the times of the day and amount of time allowed for their several meals, of all time lost which is intended to be recovered, and of all time which shall be recovered, shall be hung up in the entrance of the factory, and so much of section 36 of the said Act as provides that during any meal time which shall form any part of the hour and a half allowed for meals, no child or young person shall be employed, or allowed to remain in any room in which any manufacturing process is then carried on, and all the young persons employed in a factory shall have the time for meals at the same period of the day, shall not apply to the employment of male persons above 13 years of age in any paper staining works, or to the employment of children or young persons during the meal time of such male persons.

"§ IX. The provisions contained in the Factories Acts fixing the times for the meals for the workpeople employed in factories shall not extend to the workpeople employed in paper staining works."

Principal object of draft Bill.

395. The main object of the proposed Bill in regard to the ordinary hours of employment is embodied in the last section. Mr. Potter says (p. 122)—

"What we cannot have is the factory scheme of meal times; it is absolutely necessary that we should have no stoppage for meals; to stop an hour for dinner in our establishment would cause a loss in paper and colour of nearly 1,500*l.* a year."

Reasons for the proposal of some of the masters to be exempt from the Factory Regulation as to meal times.

396. The causes of this alleged loss are thus explained by the foreman of the machine printers at Messrs. Potters', A. Kay (p. 123):—

"Stopping an hour for dinner would be very well for us, but it would be a serious loss to our employers; besides the hour or whatever the time was, if as much as 20 minutes or half an hour, we should have to work for a good 20 minutes when we began again before the felts got moistened and the rollers took on the colour well: when we start in the morning that takes us more than half an hour, for the felts are dried hard and must be made pliable; and besides, whenever a machine stops there are from three to five yards of paper at the very least spoilt; the extent will depend on the girth of the machine, the length that is from the first to the last roller which is being used; next, the chances are that the boy in winding over the first piece, leading it, that is, with a string, along from the machine through the flue and back to the drawing rollers, will break it off once or twice, and there is five or six yards again gone each time. I could not stop for an hour or even half an hour without breaking off, for if I left the length in the flues, the drying rooms I mean, the whole of it, 36 yards about, would curl up with the heat and become brittle and useless."

397. Another workman also in Mr. Potter's employ, W. Duffy, states as follows to the same effect (p. 124):—

"The loss in waste from stopping that padding (grounding) machine for an hour for dinner would be that of the 7 yards now on; but we should lose another half hour, one quarter in starting before everything would run well and the other quarter for washing the brushes. We take a good half hour and lose two pieces, about 24 yards perhaps, before we get into working order when we start in the morning; and if we did not wash the brushes they would be clogged with the colour dried on them and would make the paper so gritty that it would not take the print of the block. In factories the only loss in stopping is merely that of the time of actual stoppage."

398. The managing partner at Messrs. Heywood's, Mr. Smith, states on the same subject (p. 125):—

"There would be a great loss in waste of colour and paper, as well as of time beyond the hour, if the machine stopped for dinner; the mere extra quarter of an hour in starting afresh out of $10\frac{1}{2}$ hours is $2\frac{1}{2}$ per cent."

399. Mr. W. Snape of Over Darwen states (p. 126):—

"I have been a workman myself, and my inclination is to let the men go for the meals, but I am sure that stopping would be seriously disadvantageous to us. Besides the loss of time in getting the sieves moist and in getting the colour well upon the rollers, there is always a loss of paper and colour in starting; the loss at night from the caking of the colour in the colour boxes will be for a 10 colour machine at least 5*s.*; it would not be so much after an hour's stoppage, but still it would then be considerable. There is also always a loss of paper and colour in running over. The average is two pieces lost whenever the machine is first started. The rollers get jerked out of their position and would work the pattern wrong if we did not run some waste over and re-adjust them. If the

Paper Staining.

paper was left in the flue for the hour instead of being broken off it would become so brittle and singed as almost to turn to tinder in your hand; the colour too is injured by remaining long in the extreme heat; the edges of the paper curl like a rope and the piece cannot be wound-up."

400. And in this view Mr. Snape is confirmed by one of the men in his employ, Isaac Cooper, machine printer (p. 127):—

"If we stopped for dinner hour we should have to break off; 8 or 10 yards would then be wasted between the rollers, and the same again at starting; the pattern too would be thrown out. In starting fresh the chance of breaking while running the piece over varies according to the nature of the pattern and paper; when there is a heavy pattern that makes the paper moist it is more likely to give way to a slight tug; the boy has to draw it with the string attached through the flues and back, so as to get it even and smooth within the draw of the drawing rollers."

401. Again, Mr. James Dixon, managing partner of the firm of Messrs. Walkden and Dixon, Blackburn, shows that his practice is not to stop the printing machine for meal hours (p. 130):—

"We have four printing machines and four block tables; the latter are of course hand-worked, and the men are paid by the piece and hire their own teerers; it is among them that the youngest children are to be found; two are as young as 8 years old. 8 p.m. is the latest hour to which they ever stay, and they have regular meal-times, so have the five who are employed on the winding-up machines, and who also leave work earlier. There are three boys, too, engaged in packing, they work less time and have their meal hours; it is only the boys in the printing machine room that have to get their meals without stopping work, and work on in winter to 10 p.m. sometimes."

402. In the same manner Mr. J. C. Allan, of the firm of Messrs. Allan and Co., Old Ford, states (p. 132):—

"That machine at which they roll on cannot stop; if we dried too quickly we should destroy the fabric of the paper; the papers in the drying tubes would be scorched and possibly be dangerous; we should have to run very slowly if we slacked the fires to get the heat back."

Contrary opinions. Amount of loss by stopping for meals exaggerated.

403. Notwithstanding the apparent urgency of the foregoing arguments, other testimony leads to the conclusion that the amount of loss which would arise if the machines were stopped at meal-times is capable of being reduced much below what has been stated; that it is not absolutely essential to keep the machines at work during the meal hours; and that therefore there is no reason why machine printers in the paper staining manufacture should not be placed under the Factory Act.

Machine printers should be placed under the Factory Act.

404. It would appear from the evidence of Mr. Potter himself (p. 122) that the large sum of 1,500*l.*, which he believes would be the loss to his firm from the stopping of his 11 printing machines an hour for dinner, might be largely reduced if all the men and boys employed by him in connexion with his machines were as careful as some are. Mr. Potter says,—

"Each man will speak only from his knowledge of what his machine does, and there is a wide difference, some are much more careless than others, and let their boys be too, and will waste and spoil twice the amount that others will."

405. One of Mr. Potter's men also, R. Preston, machine driver, states (p. 123):—

"I don't think the loss in waste from stopping an hour for dinner would be so much as Kay says. If this 10-colour machine stopped now for an hour, not more than four or five yards would be spoilt. The boys don't, as a rule, break the paper off in winding over, and the paper often stays for nearly an hour in the flues, while we are changing the sieves and felts to put on fresh colour and gets no harm. The felts would not dry or harden in an hour, though they do in a night. We are told not to leave the paper in the flues, but we do it still. We do generally put a little waste on, a dozen yards perhaps, to get the sieves moist and fit for running; the rollers soon get dry and would stick to the paper if the sieves did not put fresh colour on them; they do stick sometimes, and then the paper goes. There would be no loss to speak of from the colour caking in the boxes; I don't think it would cake in an hour."

406. The works of Messrs. Heywood, who have 10 printing machines, are about on an equality with those of Messrs. Potter. Yet a machine printer of Messrs. Heywood, J. Boden, states (p. 126), that "the loss in waste and colour from the 10 machines in their "room stopping at meals would be 1*l.* a day, or 313*l.* a year," a wide difference from the amount estimated for his 11 machines by Mr. Potter.

407. Of the 17 firms in the trade employing machinery, there are only 10 considerable ones; the machines possessed and the numbers employed by the remainder being very small.

408. The particulars relating to those 10, and of two of the small ones, are given in the following Table, from information furnished by the parties themselves, and nearly the whole of which appears in detail in the evidence.

61

Paper Staining.

Firms.	Printing Machines.	Total Children and Young Persons employed.	Children and Young Persons employed in connexion with Machinery, including Printing, Grounding, Brushing, Winding-up Machines, &c.	Employed with Printing Machines that stop at Meal Times.*	Employed with Printing Machines that do not stop at Meal Times.*	Adults employed.	Remarks.
Messrs. Potter, Over Darwen -	11	149	109	—	84	140	
Messrs. Heywood, Manchester -	10	152	102	—	81	140	
Mr. Snape, Over Darwen -	2	56	28	—	16	62	
Mr. Lightbown, Pendleton -	4	37	24	—	17	36	
Mr. Walkden, Blackburn -	4	37	27	—	27	28	
	—31						
Mr. Thorp, Bermondsey - -	5	57	50	50	—	36	
Messrs. Allan, Old Ford - -	3	42	42	35	—	28	
Mr. Cooke, Leeds - -	3	70	21	21	—	53	
Mr. Trumble, Leeds - -	3	63	9	9	—	62	
Mr. Wilcoxon, Borough - -	1	25	4	4	—	—	
Messrs. Jeffrey, Whitechapel -	2	39	10	10	—	36	
Mr. Spurway, Stoke Newington -	3	14	9	6	—	14	
	—20	—741	— 435			—— 635*	* According to our returns in 1862.
Machines belonging to 5 remaining Firms, say - -	5		By remaining small Firms, say 45			By remaining small Firms, say - - 109	
Total machines in the trade - - -	56		Employed in connexn with machinery - 480				
Employed by the remaining Firms, almost exclusively block printers -		419	Employed in block printing 670				
Total children and young persons -		1,150	Total - 1,150	135	225	Total† adults employed - 744	†According to a return prepared by Mr. Potter in 1861.

* Including in most cases the grounding machines.

409. From this Table it appears, first, that 5 firms, possessing 31 printing machines, do not stop them for meal-times; those among the children and young persons in their employ, working with machines, who do stop for meals, being those engaged with other than printing machines, or in other work of an accessory character.

Instances where the printing machines stop at meal-times.

410. On the other hand 7 firms, possessing 20 printing machines, do stop them for meal-times; with some exceptions, the whole of the children and young persons employed by them in connexion with machinery take the usual meal-times, and the men have in some cases a full hour, and in others half an hour for dinner.

411. This affords a plain proof that important loss is not the necessary consequence of stopping the printing machines for the meal hour. And to the 20 printing machines above given, which stop for meal-hours may be added the five others belonging to the other small firms; all of which, according to the statements received by us, are stopped for meal-times.

412. The accounts given of their practice, by the representatives of the seven firms who stop their printing machines for the meal-times, are as follows:—

413. The foreman and engineer of Mr. Thorp states, (pp. 131, 132):—

"There are five printing machines in this room worked by steam; four of them have their drying plates here; the fifth, a large one for 16 colours, works up into the next floor. . . . There is a man to each machine. . . . . There are five boys attached to each machine of eight colours, three of them have nothing to do with the machine at all, for they are at the further end of the drying plates 'pulling down' the paper and 'chopping off.' 'Pulling down' is passing the printed paper along and off the plates. 'Chopping off' is cutting it into lengths of 12 yards as it comes from the hands of the 'pulling down' boy. The two other boys have to keep the colour boxes supplied with colour from a pail by their side; that is all they have to do. . . . . In this room the only meal-time allowed is half an hour for dinner, but the boys have plenty of breaks in the day besides that, and during some of them they get their breakfast and tea." [Explained to amount to 10 minutes rest in every hour of work, and a longer rest every other day of from one to two hours.] "So far as waste or damage merely goes, it does no more harm to stop an hour than five minutes; about a yard of paper between the two last rollers is spoilt, that is all." And upon this statement being read over to Mr. Thorp by Mr. Lord, he acquiesced in it, stating "I have nothing to alter in the evidence you have read to me; it shows everything fairly" (p. 131).

414. Messrs. Allan, of Old Ford, who have three printing machines allow "in the "machine printing half an hour for dinner instead of an hour" (p. 132), with the exception of the "rolling-on" boys who have no fixed time for meals. [Messrs. Allan have since informed Mr. Lord that the "rolling on" boys have now their regular meal hours.]

415. Mr. Cooke, of Leeds, states (p. 127)—

"Our machines stop for the meal-times; occasionally five or six boys have to work through a portion of the meal-times. When we were working generally till 8 p.m. last year, we tried working the machines on through the meal-times and leaving off with them at 6, so as to make the hour and a half extra time between 6 and 6, but it did not do so well as working till 8 and stopping for meals."

Paper Staining.

416. The foreman of Mr. Trumble, of Leeds, informed Mr. Lord (p. 129), that their—

"Usual hours of work are from 6 a.m. to 6 p.m., with half an hour for breakfast and an hour for dinner. On Saturdays we leave off at 2; . . . that they had lately tried working them without stopping for meals, at the request of the men, who preferred their 10½ hours work all at once without any break," and he added, "it makes no difference to us."

417. Mr. G. Ottley, manager of the works of Messrs. Wilcoxon, Borough, states (p. 140),—

"Our machine is always stopped for dinner. There is no waste of colour or paper to speak of."

418. Mr. Southall, Kingsland Road, who has one machine, says (p. 139),—

"Our machine does all kinds of work—printing, grounding, or graining. . . . We always stop for dinner as it now is."

419. Mr. Spurway, Stoke Newington, says (p. 141),—

"We always stop work for the dinner hour, and they [the boys] almost all go home, for they live near; the loss from waste alone by stopping is a mere nothing, a yard or two of paper is spoilt at most."

420. Mr. A. Brown, also of the firm of Messrs. Jeffry and Co., Whitechapel, who have two printing machines, states (p. 133), that he would be glad of any regulation "limiting "overtime," and expresses no apprehension at being obliged to stop his printing machines at meal-times; his own opinion being contrary to that of one of his men on that point (E. Shipley, p. 135).

Loss of time, and not loss of material, the main reason why stopping objected to.

421. It would appear, indeed, from the following statements that the reason why the stopping the printing machines for meal-times is objected to by some of the manufacturers in the trade is not so much the loss of material which it occasions as the loss of time.

422. Mr. G. Ottley, above referred to, states (p. 140), "I can understand the loss of "time not being liked;" and Mr. Southall gives his opinion (p. 139), that where the aim of manufacturers in this branch of business is "larger quantities and low profits" . . . "they must go on without stopping." We apprehend, therefore, that no sound argument can be drawn, applicable to the trade as a whole, from the conditions under which some of the leading persons in it find it expedient to conduct their business. It is obviously open to all those who by their mode of working, or by the demands of their customers, find themselves under the necessity of continuing to keep their machines at work during the meal-hours to adopt one of two courses,—either to use more machinery, or to employ adult labour.

Alternatives if placed under the Factory Act.

423. These alternatives are mentioned by Mr. Smith, the managing partner of the firm of Messrs. Heywood and Co. :—

"We have never tried relays, and doubt its applicability to our trade; the probable effect of that, as also of any other limitation of working times, would be either a vastly increased outlay of capital for machinery, or the substitution of adults' for children's labour" (p. 125).

"At all events," Mr. Smith adds, "if anything is to be done by way of limitation, the only way in which any good can come of it is by its being made compulsory through Government interference."

424. To obviate the necessity of working night and day Mr. Snape states (p. 127), that he is "going to put down additional machinery."

425. And Mr. Riley, foreman of the works of Messrs. Lightbourn, states that,—

"The effect of preventing those between 13 and 18 from working overtime will be to require more machinery to be laid down."

426. To which the only objection he makes has reference to the men and not to the employers.

Cost of substitution of adult labour not material.

427. And that the substitution of adult labour for that of children and young persons during the meal-hours by any employer who might think it necessary to keep his machines going during those hours is not impossible, consistently with the interests of the employer, is shown by the fact that adult labour is occasionally so substituted when required.

428. Andrew Kay, foreman of the machine printers of Messrs. Potter, says (p. 123),—

"There are two boys to each machine 'plaiting down' in turns; the one who is not plaiting assists the machine man at anything he wants, or does nothing till his turn comes. If we could not get the two boys, one man might do their work."

429. The foreman also of Messrs. Lightbown and Aspinall's works, Pendleton, Manchester, states on the same subject (p. 129), that one of the results of preventing children and young persons working in this trade otherwise than according to the factory regulations would be that,—

"The adults of course would work overtime, as they do now. In the calico printing, after that Act passed, the adults did the night work as much as before, and so it is in the cotton mills."

Paper Staining.

430. The evidence also of J. Cooper, machine printer at Mr. Snape's works, Over Darwen, shows that when compelled, the men were able to get through the work which was required to be done in the absence of the boys; their absence indeed being in this case occasioned, not by their going to their meals at the usual hours, but by their exhaustion from the long hours of work. He states (p. 127),—

"Last winter we worked this machine sometimes 16 hours a day, and generally from 13 to 14. The boys worked on as long as they could, but we men had to contrive to let some go an hour or two earlier, and plait down and do odd work as well as we could ourselves."

431. That the employment of adult labour during meal-times ought not to be deemed an unreasonable requirement by the firms which might, according to their present mode of working, find it necessary to do so, in the event of the provisions of the Factory Act being applied to their trade, will be evident from the following considerations:—

432. There were produced in 1861–2, according to an approximate statement furnished to us by Mr. Potter,—

Pieces of paper printed by machinery	14,025,000
„ „ by blocks	2,460,000
Total pieces	16,485,000

433. The number of machines according to Mr. Potter's statement was at that time 56.

434. The number of pieces produced by each firm was also estimated; and it may be assumed that the production of each firm remains relatively the same as in 1861–2.

435. This being so, their relative proportions would still be as follows:—

5	firms owning	31	machines produce	9,900,000 pieces.
12	„ „	25	„ „	4,125,000 „
17		56		14,025,000

436. It has been seen that the owners of the 25 machines, producing nearly half the number of pieces manufactured by machinery in the trade, stop their printing machines for meal-times, and do not anticipate any serious consequences from being obliged to conform to factory hours.

437. There remain the five owners of the 31 machines who do anticipate loss. Of these, two, namely, Messrs. Potter and Messrs. Heywood, according to Mr. Potter's estimate, produced together in 1861–2, in nearly equal quantities, not far short of 8,000,000 out of the above-mentioned 9,900,000 pieces.

438. With regard to a production so great in itself, and bearing so large a proportion to the total production of the trade, the reasoning of Mr. Mitchell (p. 130) applies with great force:—

"There is a great difference as to overtime between hand and machine work; in the latter an adult might very well stay for the overtime and do the boy's work, and the number of pieces which the machine prints in the day would make the excess of wage for a grown man's labour beyond that of a child scarcely perceptible; they will print from 1,000 to 2,000 pieces a day; but a hand-worker never at most gets through more than 60 or 70 pieces in the day, and often only 35 or 40, and with heavy colours and flocks frequently under 20; so that the extra wage, being spread over a smaller extent of produce, would be felt at once."

Block printers al should be placed und the Factor Act.

439. It appearing clear that no sufficient grounds can be stated why the machine printers should not be subjected to the regulations of the Factory Act, the question arises should the block printers also be placed under the Act? They have the usual hours for meals, and their overtime is not so great or so frequent as that of the machine printers. Mr. Lord thus describes their practice in these respects. The block printers—

"Leave off work for meal-times, having an hour at midday for dinner, and half an hour for breakfast or for tea, according to the usual period of working hours; in some cases both tea and breakfast are allowed" (p. 120).

440. And as regards their overtime, he states that it is attributable—

"As much to the irregular habits of the men, who, as piece-workers, have the disposal of their own and their children's time to a very great degree in their own power, as to any alleged requirements of a season trade, or to any necessity from competition to complete orders for speedy delivery at short notice."

Reasons fo

441. Although some of the reasons do not exist in the case of the block printers with the same force as in that of the machine printers, for placing them under legislative restrictions, the grounds for including them are such as to leave no room for doubt.

Paper Staining.

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1. Many machine printers, as has been already shown, are block printers also. A proposal put forward by some employers in the trade that legislation, if it should take place, should be confined "to paper staining works where the processes shall be carried "on by steam power," was strongly and legitimately objected to by those using both machine and hand printing, as appears from the following statement of Mr. Cooke (p. 128):—

"The effect," he says, "of such a measure would be that wherever say one grounding machine was worked by steam, or to put a more likely instance, where, as in our case, they had two or three printing machines only, but did by far the most important of their work by hand, they would be under the Act if they only happened to have both the block tables and the machines within the same block of buildings, "curtilage" is the word used in the Bill, I think, but if the two sets were separated by the mere width of a street the hand workers might go on night and day upon the papers which had been grounded by machinery over the road, and the injurious result of that would be that the system of garret working, as it is called in London I believe, giving out machine grounded papers, that is, to be printed cheap by hand in small works, or taken by the workmen to their own homes, would be very much increased, and that would of course be wholly beyond the reach of legislation, while it is in such places that, from the irregularity of the orders perhaps, as much overtime is worked when they are working at all as anywhere. It would also be manifestly unfair for those like us, who have built spacious premises in order to accommodate both sets of workmen, to have either to remove our block tables, or to submit to the limitation of our day's work, while competing with others who are under no such limitation."

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2. The amount of overtime is at times considerable; so much so as to require that the children and young persons in this branch of the trade should receive the same protection from it as those in the machine printing branch.

442. And it is satisfactory to know, on the authority of many of the largest and most experienced block printers in the trade, that overtime is not needed, and could be easily put an end to. Mr. Cooke thus expresses himself (p. 128):—

"As to overtime, I don't think there would be much harm if no overtime was allowed at all. There must be put a limit somewhere on the work we undertake, and if we are pressed with orders we must either put on a few more tables or go through our books and get rid of some bad customers, and that would not do us any harm. There is not much good got out of overtime work to my mind. If the men knew they must finish off by a certain time they would manage to do it. We can calculate to a nicety the time a given number of pieces will take, and a man would either work a little faster in the time he had, or not attempt more than he knew he could get through. The case of a man having a few pieces at the end of the day to finish for metalling would be quite exceptional."

443. To the same effect is the evidence of Mr. Roper (p. 131). Mr. Erwood (p. 143) says:—

"As to overtime, the men might very well so arrange their work as not to have to stay to finish off an order; they can always calculate how long they will take within a little, and if they chose, or were compelled to come earlier in the morning, might be ready to close regularly at night."

444. Mr. Riley (p. 143) thinks that—

"Some regulation of the overtime would be a good thing both for men and masters. If all had to submit to it none would suffer. I am sure I should not."

ducation as uch eeded.

3. The state of education among the children employed by the block-printers, no less than among the machine-printers, is such as to make it highly desirable that the factory regulations should be applied to them. Their actual state is thus described by Mr. Lord (p. 121),—

"In the course of visiting the various works in which the accompanying evidence has been collected, I have made it a practice to test to some degree the extent of education among the children and young persons. I have endeavoured to do this by requiring some of 10 years of age and upwards, whom I picked out as they worked, and who appeared likely to be fair average instances of their class, to read a few lines of a simple hymn from a small book printed in a type rather superior to that of the ordinary hymn book.

"The majority have at once admitted or alleged that they could not read at all, and as it did not appear to me that those who thought they could were generally disposed to shrink from being tested, I have confined any further investigation to the minority; of them very few could read with ease, most spelt the words letter by letter, some did not know all their letters; in most cases when the reading was at all good, home teaching rather than school seems to have produced that result, except in instances of children who had been for perhaps a year or more consecutively employed as 'half-timers' in a factory. In the North, speaking generally, the great majority of those children whom I found capable of reading and of understanding what they read, had been for some lengthened period in a factory school."

445. This low state of education is found pretty equally both in the North and in the South.

Paper Staining

446. Robert Preston, machine driver at Messrs. Potter's works, says (p. 124),—

"Those boys that came forward to you yesterday, Sir, were the ones that wanted to show off that they could read; those that couldn't hung back. I went round to all the 25, from 9 to 13 years old, in this and the next room; 11 of them can't write their own name, and four of those are over 13; they generally can write their own names before they can read."

447. J. Bodin, machine-printer at Messrs. Heywood's, says (p. 126),—

"Our work gets slack in summer; from June to August we don't go on much after half-past 4 p.m. The children could go to school then, but they don't, many of them; the boys are about as low as any working boys. That boy's brother looks after him, and that's why he looks better and can read a bit."

448. At Mr. Snape's, Over Darwen, Mr. Lord examined several children, "some of "whom could read a little and some not at all" (p. 127). Mr. Cooke, of Leeds, says (p. 128), "Our boys never have much education." Mr. Riley, foreman at Messrs. Lightbown's, Manchester, says (p. 129), "The children don't go to school, except the "Sunday school, generally speaking." Mr. Dixon, managing partner of Messrs. Walkden's, Blackburn, says of the boys (p. 130),—

"They don't get much education; most can't read, and those that can read at all well have all been half-timers at a factory, and had to go to school there."

449. The general average of the small amount of instruction among the children employed in the works in London and its neighbourhood appears to be even lower than that of the North. A few "go to school sometimes of a night," but without much effect, judging from the account that some give of themselves (B. Rowe, p. 134; J. Dacey, 135; R. Deane, 138; C. Knight, 139), or by others (H. Bateman, p. 138). At Messrs. Scott and Cuthbertson's, Chelsea, where exceptional pains have been taken to encourage education, the boys are described as below the "social status" of the rest of the school (p. 137); and at Messrs. Wilcoxon's, Borough; Messrs. Holmes', Islington; Messrs. Carlisle's, Islington; and Messrs. Woolams', Marylebone Lane, as being "rough "and ignorant," although the foreman of the latter works thinks that "paper-stainers' "boys are, as a class, perhaps about the average of the working boys in London" (p. 135).

Special objection raised by block printers.

450. But the block-printers have an objection of their own against the children in their employ being placed under the Factory Act. They state, 1. That a system of relays would be impossible, because if they changed their "teerer" the piece would have perceptible differences in colour. Mr. Cooke says (p. 127),—

They could not change their "Teerers."

"There is certainly a perceptible difference in boys teering; it consists in the mode of laying the colour on the sieve, and the result of having two boys following each other by turns to teer for the same pattern would be that one piece when printed would look fuller and heavier in colour than another, and that would be sure to show when the paper was hung on the walls of a room, if not before. When we have to find fault with the men for not printing the pattern of uniform thickness, the general excuse is that they had just then to change their teerer."

451. The Foreman of Mr. Trumble states (p. 129),—

"I don't think we could possibly work with relays at hand printing. The pattern would be different in look on the wall if the colour were thicker in one part than another, and no two would be alike."

452. The representative of the firm of Messrs. Scott and Cuthbertson, Chelsea, states to the same effect (p. 136),—

"I think there would be a difference in the pieces if two boys were to teer in turn for the same piece."

453. And Mr. Owst, of the firm of Messrs. Turner and Owst, Pimlico, is of opinion—

"That there would be a perceptible difference in the print, if one boy had to follow another in teering for the same piece. One has a lighter touch, and puts the colour thicker on the sieve, so that it would happen that two pieces of the same pattern would be printed by the same blockman, but would not hang side by side." (See also E. Willis, p. 133.)

Contrary opinions.

454. Others indeed think differently: (Mr. Mitchell, p. 130; Mr. Allan, p. 132); and as a teerer can be trained, according to some witnesses, in a fortnight, a month, or six weeks (E. Willis, p. 133; Mr. Allan, p. 132; H. Parry, p. 137; R. Taylor, 139), it is possible that care and attention might prevent the difference between the work of one teerer and another being perceptible. But the belief of so many of the leading persons in the block-printing portion of the business that the difference would be great, and consequently the difficulty insurmountable, and their conviction also that it would not be removed by the teerers being changed on alternate days, instead of in the middle of each day (pp. 135, 138, 140, 143) is of importance in reference to another opinion which has been

Paper Staining.

very generally expressed by the block-printers, that if the Factory Act was applied to them they should dismiss all the children below 13 years of age.

455. Mr. Cooke says (p. 127),—

"I am not sure that it would not be better for us if we had none under 13; that would be the result probably of making relays compulsory."

456. E. Riley, the foreman of Messrs. Lightbown's works, says (p. 129),—

"If the factory half-time regulations come in, we shall get rid of all under 13."

457. To the same effect is the opinion of Mr. Owst (p. 138). And although a few employers think the younger ones the best, as being "more handy, more nimble," or "more manageable" (J. Scott, p. 137, J. Pearson, p. 133, — Sampson, p. 136), the opinion of the great majority of employers in the block-printing branch is in favour of dismissing all under 13 rather than subject themselves to the half-time regulations.

458. They would have to pay a higher rate of wages to the additional number that they would have to employ above the age of 13, but they think "they would get their "work better done."

459. The managing partner of Messrs. Walkden's works states on this point (p. 130):—

"If we were put under the Factory Act we should probably get all the work done by persons over 13, and, though we should have to pay a little more, our work would be done better."

460. And the prevailing opinion of the trade appears to be well expressed by Mr. Southall (p. 139):—

"Most of the boys whom we employ directly are over 13, and those employed by the men are under; there are six here under 13, but the youngest is over 10. The trade would not suffer if none were under 13. My men wouldn't mind having to take boys over 13 if I required it: they would, of course, have to pay them a little more; as it is, they don't pay more than 4*s*. a week; we pay from 6*s*. to 9*s*. We find the older and higher priced boys answer our purpose best in the long run; we have 14 between 13 and 18; we don't like them so very young."

461. The intention of the Act, therefore, in regard to the education of the children under 13, in combination with their employment, would be thus frustrated by the very probable dismissal by the great majority of the employers in the trade of all under 13.

2. It is alleged also by nearly every employer in the trade in London, that the demand for boys in the various London trades is so great that they would be unable to keep any as half-timers, earning, as they assume, only half wages.

462. This argument is practically to the same effect as the foregoing one; namely, that rather than pay a higher rate of wages to retain those under 13, they would pay somewhat more to those between 13 and 18; and several experienced employers express the opinion that the latter course would be the most beneficial of the two to the master.

463. In either case the object of the education clauses of the Act would be frustrated.

464. It would appear, however, not improbable, as we have stated more at length in our Report upon the Potteries (p. xlvi.), that a way may be found by which employers who avoid compliance with the requirements of the education clauses of the Factory Act, by ceasing to use the services of children under 13, may still be placed under an obligation to ensure a due amount of education to the young.

465. There are indications in the evidence that the provisions of the Factory Act would not be unacceptable to the more intelligent of the men. Henry Southworth, jobber, in the employ of Messrs. Potter, says (p. 124):—

"When my boy began to work here he was 7, and he worked at 9 years old the whole winter from 6 a.m. to 9 and 10 at night, waiting down in the hot machine room, without stopping for meals. We can't get them to go to school even on Sunday when they are overworked in the week, for they lie abed all day to rest. We should be glad of the Act to regulate them like the factory children, for their health and education too."

466. Robert Preston, also machine driver in the same employ, says (p. 123),—

"We want the Factory Acts in our trade. If the children could but be taught at school up to 13, they would afterwards teach themselves at home."

467. Another of Messrs. Potter's men, J. Leach, says (p. 124),—

"Half-time and education would be a grand thing."

468. And a fourth, B. Whalley, says (p. 124),—

"We should all like to be under the Factory Acts."

469. One or two, indeed, of the witnesses express a preference for the Print-works Act; but of this Act Mr. Baker states in his Report for October 1862 (p. 52),—

"That it is admitted to be a failure, both with reference to its educational and protective provisions."

Paper Staining.

470. Messrs. Potter, indeed, as is stated by their managing partner, Mr. Preston (p. 123), have shown the value they attach to the half-time system, by adopting it voluntarily in the case of a portion of the children in their employ.

471. The consideration of this point had moreover made so much progress among the men connected with the paper-staining works in the North, that "about two years ago," as appears from the evidence of J. Boden, machine printer, at Messrs. Heywood's (p. 126), a deputation waited upon the masters respecting it.

"I was one of a deputation from the operatives to the masters some two years ago upon the question of hours of labour. Some of them were very willing to meet us, but they were afraid of each other. If the larger houses had agreed to work 10½ hours the only effect would have been that a great deal of their work would have gone to the smaller houses, who would have worked night and day."

Others incline to the proposals of the masters.

472. Although the object of the deputation was to obtain, among other things, the limitation of the hours of work to 10½ a day, it appears from the evidence that there was an inclination on the part of some of the men not to press for the precise limitations of the Factory Act, but to adopt the view of the masters, namely, that it was impossible without great loss to stop the machines for meal-times. W. Duffy (p. 124), J. Boden (p. 126), I. Cooper (p. 127), G. Ottley, manager to Messrs. Wilcoxon (p. 140).

Deviations from the provisions of the Factory Act proposed by the masters examined.

473. This makes it necessary that we should examine minutely the proposals of the masters as embodied in their Draft Bill, the substance of which we have extracted at p. lx–lxi. We are of opinion—

1. That the permission sought by § II. to employ females above the age of 18, and young persons, for 12 consecutive hours, on any working day except Saturday, and to employ children for six consecutive hours on every working day with no recognized hours of meals, would, if granted, entail an undue amount of fatigue upon those persons. The evidence plainly shows that it is the continuous attention in watching the machines and in the various processes connected with them that is injurious to the young, notwithstanding their occasional intervals of rest.

2. A further objection to the making it lawful for females above the age of 18, and young persons, to work for 12, and for children to work six consecutive hours, arises from the fact of "the heat, closeness, and dirt" which appear to be the general characteristics of "the shops in which the printing is done by steam machinery," and also from the amount of dust in the brushing rooms, and of "flock dust" in the process of "flocking" paper.

474. The temperature of the machine room at Messrs. Potters is described by R. Preston, machine driver (p. 123) as "very hot when there is no wind or when it is closed "up in winter; above 110°." G. Barret, machine printer at Messrs. Allan's, Old Ford, says (p. 133), "it is sometimes so hot here that you can scarcely breathe," and T. Horsey, rolling-on boy (age 14) says (*ibid.*), "We are always here; have no meal-times; eat as we "sit; the engine is always going. The heat is stifling sometimes." Mr. A. Brown, of the firm of Messrs. Jeffrey, Whitechapel, says of the machine room (p. 133) "it is very hot "there sometimes, and fatiguing for the young ones." Of the dust in brushing, Mr. Lord says (p. 119) that—

"When the brushing is effected by machine, a fine powder of French chalk or China clay is scattered upon the paper. . . . This powder, when the machine is in motion, rises and fills the brushing rooms with a cloud of white dust, which occasions a painful sensation of choking, and is very generally complained of as being not only unpleasant but positively unhealthy." . . .

475. And as regards the machine shops, Mr. Lord states (p. 121) that—

"In that portion of the works, both in London and the North, where the printing is by steam machinery, the shops are much closer and hotter than they need be."

476. Where these are the conditions under which large numbers of persons of all ages labour, the occasional intermissions from work provided by the meal-times are the more valuable, as tending to mitigate causes productive of injury to health.

3. Again, to permit, as proposed by § VII., male persons above 13 years of age to take their meals at any times of the day, and to allow children and young persons to be employed "during the meal-time of such male persons," would, as has been shown by Mr. Baker in his report about to be further referred to, introduce such irregularity as to make it impossible to administer the law with any certainty of its being observed.

4. The proposal embodied in § III. is one regarding which experience has shown that the strongest objections may be urged. The proposal is, to allow time to be worked up that has been lost, not only, as is reasonable, by accidents happening to the steam engine or main gearing of any paper-staining works, but also time lost "by reason of fluctuations "in trade."

Paper Staining.

477. This latter claim has reference to the trade being "a season trade," extending over the seven months from October to April, the busiest portion consisting of four months. And permission is required to employ females and young persons for 14 hours a day for five days, and nine on Saturday, and children seven hours a day "during the "two calendar months next succeeding the happening of such loss of time;" and by the proviso it would be lawful to employ females and young persons for those hours, or 79 hours a week, during three and a half consecutive weeks during those two months, and children 42 hours; hours of work much beyond those permitted by the Factory Acts, 7 & 8 Vict. c. 15. s. 33, and 13 & 14 Vict. c. 54. s. 5, in recovering lost time.

478. Irrespective of this heavy amount of labour sought to be imposed upon females and young persons during the periods above mentioned, the proposal is liable to the objection, in the words of Mr. Baker on a similar subject in his report for October 1861 (p. 24), that it is—

"Obviously open to great and systematic evasions; so much so, that 'the difficulties of detection" appear to him to be 'almost insurmountable.'"

479. This power to recover time lost "in consequence of fluctuations of trade" was introduced for the first time in any legislation of this nature into the Bleaching-works Act, 23 & 24 Vict. c. 78. ss. 2, 6. The report of the Commissioner appointed to inquire how far it might be advisable to extend the provisions of the Factory Acts to Bleaching-works (presented to Parliament in 1855) contained no recommendation of this kind; on the contrary, a large body of important testimony is referred to in his report (pp. x, xi), showing that the arguments drawn from the alleged requirements of "shipping orders" and "a season trade" were invalid, and afforded no excuse for a departure from the principles of the Factory Act.

480. Upon this permission to recover time lost,—among the other modes mentioned,—"in consequence of fluctuations of trade," Mr. Baker remarks that,—

"The conscientious bleacher will in fact carry on his works at an undeserved disadvantage, and there will be no alternative but to encourage a system of espionage amongst those employed, without which the inspector or sub-inspector will have no means of checking the entries in the registers which are open to them, and in which, entries once made, will have an effect for six months subsequently" (*Ibid.*, p. 24).

Therefore, he adds,—

"As officers, we should scarcely ever be able to test the truth of suspensions of labour either from fluctuations of trade," or in the other cases mentioned, "in which for the sake of increased wages, masters and workpeople entered into collusion to deceive" (*Ibid.*)

481. Mr. Baker returns to this subject in his report for October 1862, in which he states (p. 52), that many firms have recorded their lost time with a view to its recovery.

"But" he adds, "over the whole trade there appears to me to be a great difference of opinion as to what they shall eventually do in the way of making up lost time when occasion may require it. But this very uncertainty makes the law exceedingly disappointing to the operatives, and unsatisfactory to the employers. It disappoints the workpeople by lengthening or varying their time of work beyond the limits of those of other members of their families or of their friends, or beyond what they themselves consider reasonable or are conventional, preventing any social arrangement for the enjoyment of their meals together, or for mental culture in the evening; and it is unsatisfactory to the employers because it creates a feeling of the liability to unfair practices amongst them, and that while some are desirous of acting honestly by their workpeople and by the law, others will overwork the one and evade the other. For example, with respect to the workpeople, as the law stands, a master may say that 'as he cannot obtain his goods to bleach till 8 o'clock in the morning, 'he has had a fluctuation in trade,' and therefore he will commence at that hour and work till 8 p.m.;" another may do the same thing on alternate days or alternate weeks or months; a third may apply the same rule to the stoppage of his works in the middle of the day, and delay his workpeople in parts accordingly. The workers have thus no certainty of their own time, and can make no use of it with regularity. With respect to the masters, there are so many ways in which any of them may act dishonestly by his neighbour if he chooses to do so, that it cannot fail to be a source of disquietude and dissatisfaction."

482. And although the penalty for making a false entry on this subject is very severe,—being imprisonment for six months,—many interpretations might be given to the conditions under which lost time "from fluctuations of trade" might occur without subjecting the employers to the charge of making an absolutely false entry, yet which might be such an entry as a strictly conscientious man would not make.

Neither machine nor block printers have any

483. The above several reasons appear to us to show conclusively that neither the machine nor the block printers have any claim for permanent exemption from the provisions of the Factory Act.

69

Paper Staining.

484. But, following a course analogous to that prescribed by the Factory Act of 1833 (3 & 4 W. 4. c. 103.), by s. 8 of which the half-time regulations were arrived at gradually, we are of opinion that a temporary relaxation of some of the requirements of the Factory Acts may be reasonably permitted, preparatory, after a short interval, to the complete adoption of the Act. This question has been discussed by Mr. Baker, in his report above referred to for October 1861 (p. 29), in reference to the Bleaching and Dyeing Works Act and the Print-works Act, and the amendments recently proposed to be introduced into the former Act. After pointing out the anomalies in those Acts, Mr. Baker proposes that the Print-works Act should be repealed;—

claim for a permanent exemption from the provisions of the Factory Act.

"and the Bleaching and Dyeing Works Act so amended as to embrace bleaching, dyeing, finishing, cloth-printing, and paper staining, with the same restrictions for each trade, and with equal advantages to the people employed."

485. These restrictions Mr. Baker proposes should, temporarily, be of a less stringent nature than "the requirements of the Factory Act;" and he justifies the proposal in the following passage, which is well worthy of consideration (Report for 1862, p. 30):—

"If asked whether, with 35 years' experience of the effects of factory labour on the physical condition of the working classes, medically and officially, I could recommend such a departure from the fundamental principles of the Factory Act in regard to the works enumerated as I have suggested, I unhesitatingly reply that I do, temporarily. I believe that the regulations of the Factory Act are those which are precisely likely to produce the best effects upon the industrial classes both physically and mentally. Their limit is almost conventional. The combination of education and labour is admirable, and the Acts themselves are generally understood by those to whom they apply. But in bringing other trades under similar restrictions, we have to look at the past for our guidance for the future, and so operate as not to disjoin blended interests, nor even to disturb them more than we can help, in our anxiety to confer our benefits upon those whose lot it is to labour. In 1833 when the 3 & 4 W. 4., the first of the present Factory Acts, was passed, the labour of females and young persons was limited to 12 hours a day, and three years were allowed for the full development of the Act with respect to children. It was wisely foreseen that many trade as well as executive difficulties would arise in the administration of the law which would require time and experience to overcome. But as these were gradually overcome, other requirements have been added greatly to the benefit of those for whom they were enacted, and without any real disturbance of the operations of manufacture, or of the interests of the manufacturers. What the bleachers ask is a similar concession, and, though they ask it in perpetuity, yet I have no doubt of their eventual willingness to accept the Factory Act five years hence, with the means of adaptation which these preparatory years will have afforded them. I think too that in any such Act the women and children employed in the open air processes of bleaching should be included. They amount to a considerable number. The women are often engaged in stoving goods at a very high temperature; and the education of the children is as important as that of any other class of the industrial community."

Temporary relaxation of the principle of the Factory Act permissible.

486. So far as the above observations of Mr. Baker relate to the paper-staining manufacture,—the only one regarding which we are now expressing an opinion,—we believe that they embody several valuable truths; that in bringing the paper-stainers under the Factory Acts, the change should be so made as to give time for necessary adjustments of interests and practice; and that departures from the fundamental principles of the Factory Act should be distinctly regarded as only temporary, with a view to such adjustments, and to the gradual removal "of trade and executive difficulties."

Measure proposed. Hours of labour and meal-times for children and young persons, for 18 months after passing of the Act.

487. Accordingly we propose that for the 18 months next ensuing after the passing of the Act, the hours of labour in paper-staining works should be limited as follows:—

For females or young persons,—

On Monday, On Tuesday, On Wednesday, On Thursday, On Friday } 12 hours a day, with two hours for meals.

On Saturday - $7\frac{1}{2}$ hours, with half an hour for breakfast.

For children,—

488. Occupier to be permitted to employ children either in morning or afternoon sets, or on alternate days for ten hours a day only, according to ss. 30, 31 of the Factory Act, with the usual attendance at school.

489. The dinner hour to be taken at intervals varying between 12 and 2 o'clock. Provided always, that in no instance should the labour of children be continuous beyond $5\frac{1}{2}$ hours, or the labour of young persons beyond $7\frac{1}{2}$ hours, without an interval for refreshment and rest of half an hour; and after 18 months a Certificate of Education to be required of every child on attaining the age of 13, as referred to in detail at pp. xlvi., xlvii.

490. These recommendations accord in principle with those of Mr. Baker.

Paper Staining.

491. We believe that the interval we have named, 18 months, would be sufficient in their case to enable the masters to make all requisite preparations previously to being required to conform to the full provisions of the Factory Act. During this interval they will be able to work their machines during meal-times, as at present, with the aid of children and young persons; but these will have secured to them sufficient meal-times, and protection against the long hours of work to which they are now subjected.

492. Mr. Baker thinks that "for this concession," which can only be justified by being temporary,—

"The masters would willingly give up the clause which permits the working up of lost time for any cause whatever, and that thus the temptations to fraud and dishonesty would be removed" (p. 29).

593. And we have already shown (p. lxx.) that as far as the paper-stainers are concerned, the objections to those clauses are as strong as they can be in regard to the other manufactures mentioned, and that we are unable to recommend their adoption with reference to either branch of the trade.

"Mill gearing" should be fenced.

494. In the clause in the proposed Draft Bill to the effect that the provisions of the Factories Acts in regard "to requiring machinery to be fenced off shall not extend to "paper-staining works," we are unable to concur. The evidence shows that the "mill "gearing," as defined by s. 73 of 7 Vict. c. 15. and s. 5 of 19 & 20 Vict. c. 38. should be "securely fenced" (Mr. Snape, p. 126; J. Watson, p. 137; F. Sim, p. 140).

State of places of work.

495. The places of work, whether in the machine or block printing branch, present no peculiarities requiring legislative interference. Mr. Lord found that wherever printing was done by hand "light, air, and space were the prevalent characteristics of the "workshops" (p. 121).

496. Where printing is by steam machinery, the shops in that portion of the works where it is carried on were found by Mr. Lord to be "much closer and hotter than they "need be" (p. 121); a defect which it is probable the suggestions arising in the course of inspection will tend to remedy.

The trade generally a healthy one.

497. With the removal of this defect the "paleness and deficiency in muscular develop- "ment," which Mr. Lord remarked, both of the children and the men "in the London "shops," "although, perhaps, not more so than is the case with most workmen confined to "indoor occupations in the metropolis" (p. 121), may be expected to be less common. Upon the whole, however, according to the general testimony, the trade is a healthy one. (Mr. Preston, p. 123; Mr. Smith, 125; H. Parry, 137; H. Bateman, 138; C. Southall, 139; G. Culver, 140; G. Lamb, 142.)

The only process injurious to health is the "brushing" process.

498. The only process from which injury to health is likely to arise is the "brushing" process, described by Mr. Lord at p. 119. When this process is effected by machine—

"A fine powder of French chalk or china clay is scattered upon the paper, in order to enable the brushes to move easily over the coloured surface without detaching any of the colouring matter.

French chalk.

"This powder, when the machine is in motion, and especially when worked by steam, rises and fills the 'brushing' rooms with a cloud of white dust, which occasions a painful sensation of choking, and is very generally complained of as being not only unpleasant, but positively unhealthy; and this to such a degree that in places where the system of draughts and chimneys over the brushes has not been carried to a much greater perfection than has been ordinarily attained, even where such contrivance has been adopted, the men and boys engaged at the machine are frequently absent from illness, or have to be changed or relieved after a few hours' work" (p. 119).

Emerald green.

499. The colouring matter consists sometimes of emerald green, in greater or less proportions; and when it does so it becomes, under certain circumstances, a source of danger. The evidence of Dr. Letheby on this subject (Lucifer Match Manufacture Evidence, p. 46) is particularly deserving of notice, as showing not only the danger to the work-people but to persons whose rooms are hung with these arsenical papers, and to those who wear artificial flowers similarly coloured. Dr. Letheby relates a fatal case of a child who was thus poisoned from playing in a room in a gentleman's house which was covered with this green paper. He also states, as showing the amount of arsenical matter, that he has found about a grain of pigment for every square inch of the green leaves of these flowers; adding, "I have seen a wreath with enough arsenic in it to poison 20 people."

When emerald green dangerous.

500. The emerald green is dangerous in this trade—

1st. If it is badly manufactured. Mr. Cooke states (p. 128):—

If badly manufactured.

"Our emerald green is peculiar. It comes from one particular place in London. It is much finer and softer to the touch, less granular, that is, than the ordinary Scheele's green, of which this is a specimen. It does occasionally vary in quality, but as a general rule, if ever we had to get some from anywhere else our men know by the strong smell directly they open the cask that it 'won't 'work,' as they say; that is, that it will be loose and fly."

Paper Staining.

501. And Mr. Cooke adds that brushing emerald greens by a machine, "if it were at all loose, must be very bad."

502. Mr. Smith, of Messrs. Heywood's, states (p. 125) that "the arsenic green is better "than it used to be"; and other witnesses also are of the same opinion, that if it is well manufactured "no bad effects arise from it." It is the cheapest kind that is the most injurious.

"The commoner the colour,—the cheaper, that is,—the worse for use. It is not properly prepared; the arsenic is not killed in it." (S. Crane, p. 134, Hassall, p. 129.)

If imperfectly mixed.

2nd. If it is imperfectly mixed with the size (Mr. Preston, p. 123, Mr. Cooke, *ibid*, J. Jolly, p. 136). It appears that this is more likely to be the case with machine-made paper than in block printing, inasmuch as the colour for block printing is more "set with "size," being worked "almost in a jelly"; whereas "the cylinder in the machine must "have a more or less liquid colour, or it would not revolve; and so there cannot be enough "size to bind in the one as in the other" (J. Godwin, p. 142, Mr. Erwood, p. 143, S. Brooks, p. 132, S. Crane, p. 134).

If worked at continuously.

3rd. If it is worked at continuously, especially with machine-made paper; the friction in rolling it up when dry, or in brushing it, causing the dust to come off (Mr. Lord, p. 119).

503. E. J. Clarke says (p. 134)—

"Here we divide the labour; so if there is anything bad one is not so long over it."

504. J. Culver says (p. 140)—

"The emerald green is certainly bad, but no one ever works long enough at it now for any harm."

505. J. Petre, who says that few are so affected by it as he is, states also (p. 141) that—

"After two or three weeks' work at it nausea would come on, but we never work so long at it now. We don't use 2 lbs. for 20 lbs. that we used to."

506. J. H. Ellis says (p. 133)—

"We seldom have two days a week at that colour. It affects my throat a little and round my mouth, after I have been some time at it, but that never lasts."

507. And it appears that by some persons it can be worked at for some weeks or months continuously without injury. J. Downhan states (p. 141) that he had—

"Been through the whole thing, the very worst of it. Has been three months on end working at arsenic. It depends a good deal on constitution; some I have seen break out all over after working a few days at it."

508. J. Cooper (p. 138)—

"Had worked three or four weeks at a stretch on emerald green, and never felt more than a temporary irritation of the nostrils and lips."

509. W. Bills (p. 138)—

"Was for three months, without any change, on a large order for emerald green, and without any bad effects."

If cleanliness be not observed.

4th. If cleanliness is not observed, J. Nail says (p. 140):—

"The emerald green is worse, but cleanly persons are not affected by it. The boys, many of them, will not wash, but eat their meals with dirty hands, covered with paint and mess. I have seen them eat their dinner with hands smothered in lead."

510. H. Iden says (p. 140):—

"I am never harmed by the green or anything, and am quite hearty. My sons are just the same. Cleanliness is everything; but some constitutions are much more liable to be affected than others. I never knew a boy to be laid up for long."

511. J. Webber states the same fact (p. 142). J. Butterworth, age 16, (p. 134) states also,—

"If you are not clean with the emerald green it gets into sores, if you have any. I never suffered from it, though I often used it."

The sources of danger are watched and guarded against.

512. That these sources of danger, being well known in the trade, are watched, and to a considerable extent, guarded against, is shown, not only from the above evidence, but from the facts related by several witnesses connected with the large works in the North, where the printing is chiefly by machinery, and where consequently the greatest danger arises from the emerald green. J. Boden, at Messrs. Heywoods' works, states (p. 126) that he—

"Has never known any permanent injury from working the emerald green."

Paper Staining.

513. And he is confirmed by H. Quigley, brusher, at the same works (p. 126). H. Lampster, at Mr. Snape's works, says (p. 127):—

"There has been no absence in the four years I have been here from any sickness caused by emerald green or other work."

514. A. Bingham, foreman of Messrs. Trumble's (p. 129), had never heard of any really serious effects of either "bronzing" or emerald green. — Butcher, brushing machine worker—

"Has been away for a fortnight from illness in three years, at different times. I believe it was the green that caused it."

515. — Bagster, of Messrs. Mitchell's, Manchester, also states to the same effect:—

"I never observed any difference whether it was emerald green or any other paper that we were brushing, nor have I ever heard the boys complain; certainly none have been absent from illness in consequence. Five boys work here, and they work the longest hours of any; . . . there is a strong smell often of the arsenic there when we have been grounding with the emerald green; but the effect of that has never got beyond the irritation of the nostrils and lips that you have heard of; it is like a kind of influenza."

516. The case of a boy at Messrs. Potter's, who is said to have died from the effects of emerald green, G. Aspden (Mary Leaver, p. 125), is therefore exceptional; and is, indeed, attributed by two of the witnesses, partly to detaching the chalk dust, partly to "the "long hours and close confinement" (Usher; A. Kay, p. 124).

If paper-staining manufacture placed under the Factory Act it will afford sufficient protection.

517. This being so, there appears to be no necessity for any special legislative regulations, with a view to the protection of children and young persons from the effects of working with the emerald green. If, as may be anticipated, the provisions of the Factory Act are applied to the paper-staining manufacture, the half-time system will, as regards the children, impose as a rule that which now exists as a very general precautionary practice; namely, an intermittent mode of employment whenever the work has anything to do with the emerald green. The frequent visits and periodical reports of the Factory Inspectors will, we believe, be a sufficient protection to the young persons, by calling attention to the efficacy and value of the other precautionary measures which have been already adverted to,—such as greater care in procuring the emerald green of the best quality, greater care in mixing it, frequent intermissions from working with it, greater attention to cleanliness,—and to mechanical means for making its effects harmless, either by protecting the mouth (J. Leach, 123), or by well devised modes of carrying off, by draughts of air and chimneys, the dust created by the emerald green, and more especially by the French chalk, which seems to be the commonest source of injury; J. Jolly (p. 127), Mr. Cooke (p. 128), T. Robinson (p. 129),—Butcher (p. 129),—Coffey (p. 132);) or to other modes of mixing the emerald green, by which all danger from its use is said to be avoided, such as, we are informed, the process of M. Bérard Teuzelin, of Paris. We are glad to be able to state that Dr. Guy, in his report on alleged cases of poisoning by emerald green, and on the poisonous effects of that substance as used in the arts, recently presented to the Medical Officer of the Privy Council, makes recommendations substantially corresponding with our own.

V.—Finishers, Hookers, &c.

Finishing Works supposed to be included in the Bleaching and Dyeing Works Act.

518. The Bleaching Works and Dyeing Works Act (23 & 24 Vict. c. 78.) has been found to describe very insufficiently the class of works subject to its provisions.

519. These works are thus classified by Mr. Baker, Inspector of Factories, in his Report for October 1861 (p. 20):—

Bleaching.	Dyeing.
Bleaching and dyeing.	Dyeing and finishing.
Bleaching and finishing.	Finishing.
Bleaching, dyeing, and finishing.	

Decision, on appeal, that they were not.

520. A large number of finishing establishments were considered by Mr. Redgrave (Report for October 1861, p. 11) to have been placed, by one of the sections of the Act, under the same restrictions as bleaching works; and in this opinion the principal finishers, "after due time for consideration," concurred. Two, however, in Manchester, thought otherwise. Mr. Redgrave accordingly took proceedings in order to obtain a legal decision upon the point; and this decision was, after appeal, that finishing, where carried on as a separate process, did not come under the Act.

521. Mr. Baker also, in his Report above referred to, pointed out (p. 21), that the process of calendering is subject to the same anomalous construction.

522. Being acquainted with these facts, and having received representations from persons engaged in the various branches of trade affected by this uncertain condition of the law, urging us to make it an early subject of inquiry, we instructed our Assistant Commissioner, Mr. Lord, to enter upon it.

Finis Hooker

Calend works omitted Bill wl has pas the Hou Commo include calende and fini ing.

523. While the proof sheets of Mr. Lord's Report and Evidence were in his hands for correction, a Bill passed the House of Commons (16th March 1863) "to amend "the Act for placing the employment of women, young persons, and children in "bleaching and dyeing works under the regulations of the Factories Acts," by enacting (sect. 1.) "That the words 'Bleaching Works' and 'Dyeing Works' in the said "recited Act shall be further understood to mean any building, buildings, or premises "in which females, young persons, and children are employed, and in any part of which "buildings or premises any process previous to packing is carried on in the occupation "of calendering or finishing any yarn or cloth of cotton, wool, silk, or flax, or any of "them, or any mixture of them, or any yarn or cloth of any other material or materials, "or in any process incident to such calendering or finishing, and in one or more of which "processes, steam, water, or other mechanical power is used or employed," &c., &c.

Proviso exclude ping wa houses.

524. A proviso, however, is introduced (sect. 3), "That nothing in this Act shall "extend to that class of works in England known by the name of shipping warehouses."

525. The effect of this Bill, if it became law, would be to leave much of the evil uncorrected.

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526. In the occupation of "finishing" a large number of boys is employed in the process of "hooking." But "hookers" are also employed by "makers-up and packers," who do not "finish" goods, and by merchants who "make up" (p. 144).

527. The greater number of boys employed in hooking are between 13 and 17 years of age; many, however, are as young as 12, and even 10. The work in all these several branches is precisely similar to that of the hookers employed in bleaching works, which are already regulated by Act of Parliament, and is, if performed by very young boys, or for long hours of overtime, liable to be both painful and injurious, producing sore feet (Mr. Goodier, p. 151), and much exhaustion (Mr. Rowland, p. 154). Its effects were fully described in the evidence recorded in the Report of the Commissioner appointed to inquire into the application of the Factory Acts to the bleaching works.

Numbe employ

528. The total number of hookers in Manchester and its neighbourhood, which is the chief seat of the branches of business employing them, were differently stated to Mr. Lord by different employers. He availed himself, therefore, of the assistance of the Chief Constable of Manchester, who ordered minute inquiries to be made, the result of which was that the number of hookers in regular employ was found to be about 1,500, and the number of those engaged at irregular intervals about 800 more; in all 2,300.

Hooker who wo be inclu in the amende Bill.

529. Of this total, Mr. Lord states that the amendment above referred to would not bring more than one-fifth, or 460, within the terms of the Act; leaving 1,840 hookers in the employ of the "makers-up" and warehousemen or shipping merchants unaffected by it.

Hooker who wo be excl

530. These numbers are shown to be within the mark by a calculation of Mr. Bentley (p. 149), who states the results of his own knowledge in regard to the number of hookers employed by the calenderers and finishers who would come within the amendment, and the number employed by the "makers-up and packers" and by the merchants, who do not. Taking the number of merchants who employ hookers at 150, and allowing a very moderate average of 12 hookers to each, the number employed by them would be 1,860; and to these must be added the hookers employed by 35 "makers-up and "packers."

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531. It is, therefore, in all probability, much within the mark to say that of the 2,300 hookers in Manchester and its neighbourhood, not more than 400 would be included in the above amendment, while nearly 2,000 would be left in the employ of the "makers-up "and packers" and the merchants, who, under the designation of "shipping warehouses," given to them in this amendment, would be exempt from the provisions of the Act (the exemption including the shipping warehouses in England only), although in every circumstance of their case so similar to those who are included as to afford no ground whatever for their exclusion.

532. We have no doubt that it is sufficient to point out this anomaly to cause its removal from the Bill.

533. The evidence of Mr. Bentley (p. 148), of Mr. D. McHaffie, of the firm of Messrs. J. Pender and Co. (p. 156), of Mr. Charlton (p. 157), of Mr. Stewart, partner of Messrs. Barbour (p. 158), and the account given by Mr. Lord of the result of his interviews

inishers, okers, &c.

with several of the principal merchants (p. 146), with the comments of Mr. Lord in his Report, place the whole question in its proper light.

VI.—Fustian Cutters.

Fustian Cutters.

534. It will be seen by the summary which we give at p. lxxxiii., of the trades and manufactures inquired into by our predecessors, the Children's Employment Commissioners of 1840–3, that the employment of fustian cutting, being of a comparatively limited extent, was classed by them among the "Miscellaneous Trades." Its principal seat was then, and still continues to be, at and around Manchester, including a district of about 20 miles in extent, and comprising also a few outlying villages and hamlets in Cheshire and Lancashire (p. 159).

535. The trade, therefore, is carried on in the midst of a population accustomed to the Factory Act, and acquainted with its benefits.

536. Hence it occurred that soon after we entered upon our duties we received intimations from persons engaged in the trade of fustian cutting of their desire that their case should be inquired into, on the ground of its being in many respects injurious to the young, and of there being also a prevalent desire, both among masters and workmen, that the main provisions of the Factory Act should be extended to them.

537. We accordingly instructed our Assistant Commissioner, Mr. Lord, to undertake the inquiry into the present condition of the trade.

538. He has found that it has increased in extent since the Report of 1843, but that in all other respects its features remain substantially the same.

539. We beg leave to refer to Mr. Lord's very complete inquiry for all details; the general results are as follows:—

I. *Number of Children and Young Persons.*

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540. It appears from a carefully prepared table, that the total number of persons of all ages employed in fustian cutting amounts to 3,937; of whom 508 are under 13 years of age; 1,055 are between 13 and 18; whilst 2,374 are over 18 years of age. The proportionate number of children and young persons to adults varies very much in different localities. Thus, whilst in Manchester and Salford only 29 children and 117 young persons are employed, the number of adults is 1,171; in Royton there are employed 150 children under 13 years of age, 280 young persons between 13 and 18 years, and 225 adults. According to Mr. Peter Rowles, a journeyman, who with others has taken an active part in this inquiry, the number of children in the trade has greatly increased during the last 20 years, "more than double certainly." (No. 1.) As to sex, there are of all ages, 1,468 males and 2,469 females; this preponderance is particularly marked in the operatives between the ages of 13 and 18 years, of whom there are 243 males and 812 females. (*See* Report and Evidence of Assistant Commissioner, p. 159.)

II. *Age.*

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541. This varies in different localities, but in most cases children begin to work at 9 or 10 years of age; some at 8 years, and a few even between the ages of 7 and 8. (Report and Evidence, p. 161. No. 1. 4 *bis*, 8. 26., &c.)

III. *Mode of Hiring.*

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542. It was formerly a common custom for children to be apprenticed in this occupation; but latterly, owing to circumstances explained in the evidence, this practice has in many places been to a great extent abandoned, though it is still usual for an agreement to be made by parents for hiring their children to work for three, four, or five years, the master retaining half the wages by way of payment for providing tools, frame, and teaching: in some cases the full wages are, however, paid to the child or its parent at the end of 12 months. Many children work at home with their parents.

IV. *Hours of Work.*

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543. There are some peculiarities connected with this trade, which operate most injuriously, and especially on children and young persons. Fourteen hours a day, out of which 1½ hours or 2 hours are to be deducted for meals, are the average of the child's work time for the week. But, as Mr. Lord has carefully explained, owing to a habit, now, as it seems, inveterate among cutters, to make "play days," more or less of Monday and Tuesday, it happens that to bring up arrears, the work at the end of the week is carried on for 18 or 20 hours, and in not a few instances during the whole of the Friday night. These irregular and prolonged hours are not restricted to the adults; the children being often subject to the same system. Several instances of prolonged

labour are given in the evidence; thus, in one case, the children worked continuously, with the exception of meals, from 6 a.m. on Friday till Saturday morning. (No. 4.) In another case, a boy 11 years old was employed from 5 a.m. on Friday till 10 a.m. on Saturday morning. (No. 29.) One witness, an employer, having four apprentices under 12, says that on the preceding Friday they began before 6 a.m. and worked till 11 p.m., and commenced again on Saturday at 4 a.m. (No. 32.) It is the opinion of those who know the business well, and are anxious for its amelioration, that there is no necessity for all this exhausting labour, which has sprung up owing to the irregular habits of the men. Some employers state that when they, for a time, limited the hours from 6 a.m. to 8 p.m. "there was more work and better work done, and everyone looked "the better for it." The truth of this remark might be illustrated by the experience of many other occupations. (Nos. 1, 2, 24, 30, &c.) Not only are the children subject to all this prolonged labour, but according to Mr. N. Meanock, one of the largest employers in the trade, they have actually more labour in their work than the men have. (No. 38.) The Assistant Commissioner has shown the great evils of this system, not only as regards the physical condition of the children and young persons, but in relation to education (p. 161).

Fusti Cutte

v. *Hours of Meals.*

544. It appears from the evidence and tabular returns that although there is considerable irregularity, usually from 1½ to 2 hours are allowed for meals.

Hours meals.

vi. *Nature of the Work and Physical Condition of the Operatives.*

545. According to the medical evidence there is nothing to make this trade prejudicial to the young, if under proper regulations. (No. 46.) But as at present conducted, this occupation, as regards children, is productive of some of the very worst results of prolonged labour, both as respects health and education. Owing to the peculiar nature of the work, the child in cutting throws the body rapidly forwards with a swinging motion to the right, in which action the weight of the body is thrown from the right to the left leg, and the general result is to produce permanent distortion of the knee, ancle, shoulder and spine (Report and Evidence, p. 160). Other evils result from the irritation in the lungs caused by the dust which arises in some parts of the process, especially in "carding," inducing bronchitis. There is a great difference in the condition of the workshops, many of the larger employers having introduced improvements, whilst the older and smaller shops are in a very bad state, with offensive smells; in some of the shops where silk velvets are prepared, the stench is scarcely endurable. The observations of Dr. Simpson of Lymm, and Mr. Kershaw, Surgeon of Royton, on the comparative health of the children employed in fustian cutting, are very important. The latter gentleman, who is a certifying surgeon under the Factory Act, and Poor Law Medical Officer, and who has thus had many opportunities of observing the physical condition of the operatives in his district, says that whilst the improvement in both mental and physical condition of those who have been under the regulations of the Factory Act has been most marked, the degraded position of the fustian cutters is equally marked, the children being pale and stunted in growth, and frequently deformed. (No. 46.) Dr. Simpson, speaking of Lymm, says there are in that village two classes, the agricultural labourer and the fustian cutter; the latter class is decidedly inferior physically to the former, a difference which, though it is in part owing to badness of food, and improvident habits, is also very much dependent on long working hours at an early age, a close atmosphere in the shops, and the peculiar movements of the body required in cutting the cloth. (No. 6.)

Nature the wor

vii.—*Moral Condition.*

546. The concurrent testimony of all those who are connected with the trade, both employers and employed, shows that ignorance and immorality prevail extensively. The great irregularity in the days and hours of work exert a most pernicious influence in regard to education; for although in the beginning of the week the children may not actually be at work, they hang about the shops, and so do not go to a day school; whilst the long hours on the other days, render attendance at night schools almost impossible, owing to the great bodily exhaustion of 14 hours work. Another great evil is the promiscuous intermixture of boys and girls, working together in the same shop, frequently without any proper superintendence. The results of all this are forcibly set forth in the evidence of the Rev. William Mac Iver, Rector of Lymm, Dr. Simpson, Rev. R. Rolleston, Mr. J. Miller, Master of the National School at High Crompton, &c. (No. 3, 5, 6, 44, 61, &c.)

Moral c dition.

547. But although there is so much evil attributable to the vicious system prevailing in this trade, it would be unjust to the operatives if it were not stated that many of the young persons, as Mr. Lord has shown, are well conducted, and anxious to improve their minds by education (Report and Evidence, p. 163).

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548. Having submitted this brief exposition of the nature and main features of this occupation, we proceed to consider how far the provisions of the Factory Act are adapted to the case of the fustian cutters. It is very satisfactory to find that all parties connected with the business, whether employers or mechanics, are quite agreed upon the main point. Thus Mr. Lord says, as the result of a very careful investigation, that "upon the benefit and upon the success, which would attend the limitation of the labour "of young persons engaged in fustian cutting to the hours of full time, sanctioned by "the Factory Act, the opinion of employers and employed, and of all other persons "interested in the matter, is unanimous; it is all but universally admitted that the "irregularity which prevails is self-chosen, and proceeds in no material degree from the "requirements of those from whom the work is obtained" (Report and Evidence, p. 163). There is very little connexion between the work as performed by the children and young persons, and the adults. Though for the convenience of the arrangement they may all work in the same shop, "each cutter works at his own frame unassisted by and "independently of any other person." Some occasional assistance may be required in setting the tools, &c. In this essential particular fustian cutting differs from many other trades, in which the labour of the child and that of the adult are, so to speak, interwoven with each other, involving in some instances a difficulty when the hours of labour of children and young persons are placed under restriction.

549. Considering the tender age at which these children begin to work; the excessive hours of labour, often extending through the night; the great physical deterioration, especially the deplorable and permanent bodily distortion, induced by overwork; and the almost total ignorance, resulting from the impossibility of any continuous and effective education, we are of opinion that whilst the application of the Factory Act to this business would in no degree interfere with its efficiency, it would protect a considerable number of children and young persons from inordinate and injurious labour.

550. The unanimity as to the advantage of applying the Factory Act in some form or other, does not, however, extend to the details. In the trade there is a strong feeling in favour of limiting the age at which a child shall be put to cutting to 11 or 12 years, and allowing it then to work at full time; an opinion shared in by many benevolent persons among the clergy and gentry (Report and Evidence, p. 163).

551. Mr. Lord has pointed out the objections to this proposal. Such a system would to a great extent defeat one of the leading objects of all factory legislation, the education of the children. There is also in this trade a special feature which must be kept prominently in view, namely, the bodily deformity and distortion which is so very frequently induced by the peculiar nature of the work. The question of age thus becomes of unusual importance; and consequently Mr. Lord made particular inquiries of various medical gentlemen, who are familiar with the occupation and its effect on the children engaged in it.

552. Mr. Kershaw, certifying surgeon under the Factory Act, and therefore peculiarly qualified to pronounce an opinion, after referring to the cause of the distortion noticed above, says,—

"Still there is nothing to make the trade prejudicial to the young, if under proper regulations. I see no reason why a child of eight years may not cut fustian for the same hours in each day as the half-timer under the present Factory Acts is allowed to work. Physically speaking, there is nothing to be gained by not allowing a child to cut under such restrictions, till 10 or 11 years of age; morally and mentally, there is much to be lost if the opportunity of compulsory education as a condition attached to juvenile labour is foregone. That principle is, to my mind, the gem of those Acts." (No. 46.)

553. Although we attach great value to Mr. Kershaw's opinion, it is to be remarked, that there is at present no direct evidence as to what would be the effect of such early labour in this trade on the conformation of the body, if the labour were limited to the hours sanctioned by the Factory Act. It is, however, a physiological fact that at the age of eight years the bones are very imperfectly developed, contain masses of cartilage to be afterwards replaced by solid ossific matter, and are consequently liable to yield and give way under any unwonted circumstances; the ligaments are also weak, and yield to violent strains; the consolidation of the skeleton is not in fact completed till many years

554. For these reasons we are of opinion, that one portion of the proposal made by persons interested in the trade might with great propriety be acceded to,—namely, that no child should be permitted to commence working as a fustian cutter till the full age of 11 years is completed. Such a modification of the hours prescribed by the Factory Acts is not without precedent; since under the Act for the regulation of mines, no boy under 12 years of age can be employed. But as regards the other portion of the proposal which has been stated above,—namely, that the child should then be permitted to work full time, we regard it as inadmissible. Although any child above 11 years of age may work full time at the light labour of "winding and throwing raw silk" (13 & 14 Vict. c. 54. s. 7), this concession does not the less involve a considerable departure from the great principle of the Factory Act for securing the education of the child, and is not applicable to this case. Full time work at eleven years of age, when the bones and ligaments, especially of the legs, although considerably stronger, are still most imperfectly consolidated, would, in our opinion, from the peculiar nature of the employment, produce distortion of the knee, and probably of the other parts of the frame above adverted to.

555. The place which the fustian cutting trade will, if subjected to the Factory Act, hold among the other trades and manufactures already under regulation is a matter of interest, in connexion with the fact that its being so placed will be in accordance with the wishes of both employers and employed, under the conviction "of the benefit and success" which would attend such a measure (Mr. Lord, p. 163).

556. The great mass of operatives now subject to the Factory Acts are those working together in numbers in mills and large factories, &c. "employing steam, water, or other "mechanical power."

557. The exception is that of those under the Print-works Act (8 & 9 Vict. c. 29., amended by 10 & 11 Vict. c. 70.) engaged in block printing, which is mere hand labour.

558. The principle of placing trades and manufactures carried on by hand labour under regulations having in view the protection and benefit of the young, was recognized by the Legislature in the Factory Act of 1802 (42 Geo. 3. c. 73.), entitled "The Factory "Health and Morals Act."

559. By the 1st section of that Act it is provided that from and after the 2d December 1802, all mills and factories within Great Britain and Ireland, "wherein three or more "apprentices, or 20 or more other persons, shall at any time be employed, shall be "subject to the several rules and regulations contained in this Act."

560. Although this statute is for the most part practically superseded by subsequent enactments, it is to be observed that it is still unrepealed (some of its provisions being still in force), and that it applied to all cotton and woollen mills and factories, whether worked by steam or other mechanical power or not. (The Factory Acts, by T. Tapping, Esq., London, 1856, p. 1.)

561. The Print-works Act, therefore, was founded upon a principle which had already received the assent of the Legislature; and by section 1 it defines a "Print Work" to be—

"Any building or shed, and any part thereof, within which any persons are employed to print figures, patterns, or designs by means of blocks or cylinders, or by means of any other tool, instrument, or mechanism, upon any woven fabric of cotton, wool, linen, fur, silk, flax, hemp, or jute, either separately or mixed together, or mixed with any other material; or upon any felted fabric of wool or fur, either separately or mixed with any other material; or upon any cotton, linen, woollen, worsted, or silken yarn."

562. But this enactment does not extend "to any part of such buildings used solely for "the purposes of a dwelling-house" (s. 1).

563. The employment of fustian cutting consists entirely of manual labour. Although many attempts have been made to effect the work of the cutter by means of machinery none have hitherto succeeded, and Mr. Lord found it to be a general opinion that in the fustian cutting trade "the substitution of steam-power for hand labour was not likely so soon to "be brought about as to form a disturbing element in devising measures to regulate the "present state of the trade" (p. 160). The fustian cutter, therefore, stands in the production of the finished article, on one process of which he labours, "with machinery "before and machinery behind him, the sole but essential hand worker" (p. 160).

564. His work is carried on the most part in small "shops," and "to a great extent in "private dwellings" (Mr. Lord, p. 159).

565. The majority of fustian cutters, Mr. Lord states, in all places but Manchester (where there are comparatively few) "work under a master-cutter and undertaker, in "small shops, containing numbers which range from 6 to 8 up to 30 or 40" (p. 160).

566. It may be inferred from Mr. Lord's table (p. 159) that of the estimated number of 1,563 children and young persons in the trade, about 1,000 are employed in "shops"

in such a manner as to come under the definition applied to this species of labour in the Print-works Act.

567. We have ascertained from the Inspectors of Factories, that should it please Parliament to extend the protection of the Factory Act to the children and young persons engaged in this trade, no difficulty of administration would stand in the way of its provisions being effectually carried out.

568. In the course of this inquiry many other trades and manufactures will come under our notice in which the work is carried on under conditions precisely similar to those of the fustian cutting trade,—namely, by children working either at home with their parents (as Mr. Lord describes those of this trade in Manchester) or in small shops and rooms, where they are employed in limited numbers by small masters or journeymen. In employment by their parents in their own dwellings there are some very important and obvious advantages; the children are more kindly treated; they are withdrawn from the contamination arising from the intermixture of the two sexes in large workshops; and their labour is often, but by no means invariably, more moderate. In the case of children working under small masters and journeymen, according to the facts recorded by the Commissioners of 1840, and according to our experience in the present and other inquiries, they are in most trades, as a rule, subject to much greater evils than those employed in large establishments: they work generally as long as the adults with whom they are associated, and are particularly liable to irregular and excessive hours towards the end of the week. In both cases, whether working at home or in small shops, they are frequently subject to all the evils arising from confined, ill-ventilated, and offensive rooms, offering in all respects a great contrast to large, well-ordered, modern manufactories and mills. The consequence is, that as regards physical deterioration and defective education, these home workers suffer at least equally with those working in small shops. Whether, therefore, the place of work be a small shop or a private dwelling, if its sanitary condition is bad, its effect upon children whose lot it is to labour there is equally injurious; and if the age and hours of work are not suitably adapted to each other,—*i.e.*, if the age is very immature and the hours of work excessive,—the due growth of the body and the development of the mind are equally interfered with, whether the child works under the roof of the parent, or in a manufactory.

569. But as this is a portion of a large subject with which we shall have to deal more extensively in our next report, we abstain at present from doing more than calling attention to the fact of injurious domestic work existing in this branch of manufacture, as also in the two following, which we proceed briefly to notice.

VII.—The Lace Manufacture.

570. The few factories or shops in which lace is still made by hand, and which consequently do not come within the recent Act (24 & 25 Vict. c. 117.), are said to be fast disappearing. (Mr. White, p. 182.)

571. The branches of machine lace making, which are liable in certain cases to be carried on in houses, and which, therefore, would not come within the Act, are,—

Winding and threading,
Rough mending,
The preparation of designs, and their adaptation to the machine.

572. The principal portions of the lace manufacture not yet under regulation are,—

1. *Machine Lace Finishing.*

573. This occupation employs a very large number of children and young persons; it is carried on in large buildings called "dressing-rooms or "getting-up rooms" in warehouses, and in houses "either private, or so called." (Mr. White, p. 182.)

574. There is good reason to believe that "between 8,000 and 10,000 children and "young persons are employed in the lace warehouses alone," principally in Nottingham and its immediate neighbourhood; and that the total numbers employed in machine lace finishing is several times greater than the numbers employed in the making, which appeared from trustworthy data to be not far short of 10,000. (Mr. White, p. 182.)

575. Mr. White has fully described in his report the irregularity, and consequent lengthening of the hours of work, to which these children and young persons are exposed, and the hot, crowded, and close places in which they work, both in the warehouses and in the "mistresses' houses."

576. The warehouses, large and small, are generally injurious to health, in consequence of the amount of heat and the mode of heating, and of imperfect and injudicious ventila-

tion; the private houses are still more so from the same causes; to which is added the more restricted space, Mr. White having noticed crowded places of work in which the space gave only 100, 92, 90, and even 67 cubic feet for each person; whereas the space considered requisite for health for each soldier in barracks is 500 to 600 cubic feet, and in hospital 1,200 cubic feet. (P. 184.)

Machine Lace Manufacture.

577. In the course of the inquiry of 1842, the almost incredible fact was ascertained, that children had been known to have commenced their employment in one branch of this species of work (pulling out threads) at two years of age, and many were found at work at the age of three and a little over (Appendix to 2nd Report of Children's Employment Commissioners, F. 9, 75; f. 42, 156). Mr. White found an improvement in that respect, inasmuch as now the usual age for beginning work in warehouses was between 9 and 10, and in private houses, under "second-hand mistresses," about 8, "in some even as young "as 5;" and, although the hours of work are not prolonged to such a length as formerly, they are so still occasionally, to an extent which appears "plainly injurious to the young."

Early age at which they commence work.

II. *Pillow Lace Making.*

578. This manufacture is carried on in two principal rural districts; one, the Honiton lace district, comprising principally a tract of from 20 to 30 miles along the south coast of Devonshire; the other extending over a greater part of the counties of Buckingham, Bedford, and Northampton, and the adjoining parts of Oxfordshire and Huntingdonshire. (P. 185.)

579. Children are "put to learn it at a very early age, six being thought the best by some teachers, though many begin at five, and even younger." (P. 185.)

Injurious effects of early age of beginning work, of foul air, and of long hours, &c.

580. The places of work, whether lace schools or private houses are,—

"Generally the living-rooms of small cottages, with the fire-places stopped up to prevent draught, and sometimes even in winter, the animal heat of the inmates being thought sufficient; in other cases they are small pantry-like rooms, without any fire-place; and in none of these rooms is there any ventilation beyond the door and window, the latter not always made to open, or if it will open, not opened." (P. 185.)

581. Mr. White adds that the crowding of these rooms, and the foulness of the air produced by it, are sometimes extreme. He noticed in one place "as small an amount as 25 cubic feet for each person." In addition to this,—

"The inmates are also often exposed to the injurious effects of imperfect drains, sinks, smells, &c., common at the outsides or the narrow approaches of small cottages."

582. In the "lace schools" the children are kept generally until 8 p.m., sometimes to 10 p.m. In their own or in neighbours' houses where, after leaving the "lace schools," at the age of 12 to 15, they congregate "for the sake of company and mutual help, and "to save light" . . . "they work what hours they please, often very late, and sometimes "all night through" (p. 185).

"The employment is often made more injurious to the eyesight, by the scantiness of the light in which they work, and by its being transmitted through bottles of water. The younger they are, the more of them work with the same supply of light, 8 or even 12 sometimes working round one dip candle." (P. 185.)

583. It might therefore be anticipated that "they suffer considerably in health from "the closeness of the confinement and bad air," as well as in their eyesight, from such a mode of working.

III. *Machine and Pillow Lace "Making-up."*

584. Young girls are generally said to be "unsuitable to this kind of work" (Mr. White, p. 186), and it is consequently performed chiefly by adult females.

Can overtime be prevented in the preceding branches of employment?

585. It appears from Mr. White's remarks upon this and the preceding branches of employment, that many of the principals who give out the work from their manufactories or warehouses, would, if overtime in this kind of work were declared illegal, take care to prevent it; and although the evidence upon this subject is conflicting, some are of opinion that notwithstanding the competition of cheap female labour in France, in lace finishing, moderate hours might be adopted without diminution of profit (p. 186).

General effects upon health and morals.

586. The concluding paragraphs of Mr. White's Report present a painful picture of the general effects of the branches of the lace manufacture not yet under regulation upon the health and morals of those engaged in it, and of the hope that had "reached many even "of these little ones" . . . "that their work hours might one day be shortened."

VIII.—The Hosiery Manufacture.

Hosiery Manufacture

587. In the portions of this manufacture performed by hand labour "an excessive "pressure of work is thrown periodically upon very young children; and some are em- "ployed almost as infants." (Mr. White, p. 265.) Mr. White was "informed by a manu- "facturer that his father was employed as a seamer at two years of age" . . . "and "other instances are given of children beginning work at $3\frac{1}{2}$, 4, and many at 5 years of "age." Also "it is common for girls as well as women to sit up at work all Friday "night, and even for children to be kept up some time past midnight" (p. 265).

588. "A young woman dares say that she was 6 before she began to work till 12 at night, and worked in a frame all through the night before she was 12 years old; and evidence is given by parents of their own child, a girl of 8, having worked the whole night through as much as 2 or 3 years ago, with a statement that work of this kind is general; others have done so at 8 or 9, and at 11 or 12, or younger."

589. As regards the places of work, Mr. White states that "as a rule, the small shops, "as well as the houses, are unfit as places of work for the young," . . . "without means of ventilation, and dirty from accumulated rubbish and dust, as well as close;" . . . the only living rooms are crowded with the frames, and are "squalid far beyond "what is usual in the country dwellings of the poor."

590. The parents are described as being "haggard with want and worn with hard work "and care, and the children heavy, stunted, and without animation" (p. 265).

591. To "the domestic branch of the manufacture" above described is to be added "the warehouse employment," in which, however, the numbers employed under 18 years of age are small, and the hours of labour moderate (p. 265).

592. The chief seat of this manufacture is the district in and around the towns of Nottingham, Derby, and Leicester, including the towns of Loughborough, Belper, and Hinckley; comprising, as stated by Mr. Felkin, 250 parishes; a great part of the small shops and home-worked frames being in the villages (p. 266).

Hand labour alone used in all these branches of the lace and hosiery manufacture.

593. All these above-named branches of the lace and hosiery manufacture belong to that large class in which no steam, water, or other mechanical power is used, and which are carried on in warehouses, or in rooms, large and small, in houses, "either private, or "so called;" and where children and young persons work, in some cases in considerable numbers, in other cases in very small numbers; but generally under conditions injurious to health, and unfavourable to their moral and intellectual improvement, or both.

Many manufactures carried on by hand labour will be included in our next Report.

594. We are not yet in a position to be able to make any recommendations with regard to these branches of employment. They are those in which hand labour alone is used, and in many instances they either are actually, or closely approximate to, domestic work. In our next Report we hope to be able to present to Your Majesty the results of an exhaustive inquiry, comprehending the whole of the trades and manufactures not yet under regulation, and not yet dealt with by us, in Lancashire, Staffordshire, Warwickshire, and the manufacturing parts of Yorkshire, together with adjoining districts into which manufacturing industry extends. Our Assistant Commissioners have already made some progress with this inquiry. Its results will enable us to bring before Your Majesty the facts relating to various other branches of trade and manufacture similar in principle to these branches of the lace and hosiery manufacture above briefly noticed, full particulars of which are contained in the evidence.

Factory laws of other countries.

595. In the meantime we have thought it desirable to annex to this Report extracts from the laws on the subject of juvenile labour, of the principal foreign countries whose manufactures come into competition with our own. We are indebted for these extracts to the courtesy of the Governments to which application was made, at our request, by Your Majesty's Principal Secretary of State for Foreign Affairs. They will afford to all interested in the subject in this country an opportunity of seeing how foreign countries have dealt with the questions now under review. All comprise hand labour.

Subjects now being inquired into, and those which remain for investigation.

596. It will also be convenient to add in this place the heads into which our predecessors the Children's Employment Commissioners of 1840, divided the subjects of their inquiry. From these will be seen the branches of trade and manufacture which have been placed under regulation since the termination of their inquiry; those which we have dealt with in this Report; those which we are now inquiring into; and those which remain for investigation.

597. The Children's Employment Commissioners of 1840, having disposed of the question of mines and collieries in their first Report, state in their second report, p. 2. (January 30th 1843), that—

"The most important of the trades and manufactures into which the Commission directs inquiry to be made as being those in which children and young persons work together in numbers 'not

'included in the provisions of the Acts for regulating the employment of children and young persons 'in mills and factories' are,— Hosiery Manufacture.

1. "The metal manufactures, including the manufacture of all descriptions of ironmongery, japan and tin wares, machinery, tools, screws, nails, pins, and the various articles commonly known under the name of Sheffield and Birmingham wares.
2. "The manufactures of earthenware, porcelain, glass, and fire-brick.
3. "The manufacture of lace and hosiery.
4. "The processes of calico printing, bleaching, dyeing and calendering.
5. "The manufacture of paper.
6. "The processes of draw-boy weaving, winding and warping.
7. "The tobacco manufactures.
8. "Miscellaneous trades, of which only brief notices can be given, such as rope and twine making fustian cutting, leather glove making, card setting, straw plaiting, printing and bookbinding, watch chain making, &c.; and among which are included dressmaking and needlework generally, because, although few children of tender age appear to be employed in them, yet after the extension of the inquiry to 'young persons,' these occupations seemed properly to come within the terms of the Commission."

598. Of the first five heads a portion has been disposed of by legislation; another portion is included in this Report; the remainder is under inquiry. The sixth head is of limited extent. Of the miscellaneous trades, the fustian cutting is included in this Report, and many of the others are under inquiry in the districts in which the Assistant Commissioners are now engaged, as mentioned in the preceding page.

IX.—Report on the Violation of the Law relative to the Employment of Climbing Boys in Sweeping Chimneys.

599. Our attention was called, as we have stated in p. viii., to the employment of boys in sweeping chimneys, a practice which, although illegal and expressly forbidden by Acts of Parliament, was, according to the statements we received, still extensively carried on in many parts of the country. In consequence of these representations, although the subject did not strictly fall within the terms of our Commission, the trade of chimney sweeping being already regulated by Law, we deemed it to be our duty to request our Assistant Commissioners in the course of their other inquiries, to obtain information relative to the alleged evasion of the Act of Parliament entitled "An Act for the "Regulation of Chimney Sweepers and Chimneys," 3 & 4 Vict. c. 85. In the course of these incidental inquiries, it became apparent that the provisions of this Act were inoperative in most parts of England, the metropolis and some other towns excepted; that great and unnecessary suffering was thereby inflicted on a large number of boys, many mere children of tender age; that the practice of using climbing boys, notwithstanding the efforts made to enforce the law by philanthropic individuals, was very much on the increase; in short, that all the evils which it was the object of the Legislature to suppress, were re-appearing in their worst form. So far as England is concerned we have received very complete information. With respect to Ireland, information has been furnished to us from trustworthy sources, that the Act of Parliament is there also, to a great extent, systematically violated. From Scotland evidence has been received of great value as showing the beneficial results that have been secured in Edinburgh and Glasgow, by the judicious preventive measures enforced by the municipal authorities, through the application of which the use of climbing boys has been suppressed. Climbing Boys.

1.—*Existing Legislative Enactments.*

600. Before presenting the results of our inquiry, it may be desirable briefly to explain the nature of the existing Acts of Parliament for regulating this branch of industry. It appears that the first Act designed to protect boys in this occupation was passed so long ago as 1788; it is entitled "An Act for the better Regulation of Chimney Sweepers "and their Apprentices," the principal object being to prohibit the apprenticing of boys under eight years of age (28 G. 3. c. 48.)

601. In 1817 a Bill for the more effectual prevention of the use of children of tender age, was introduced and passed the House of Commons, but was thrown out in the House of Lords after having been read a first and second time. In June 1834, the former enactment having been found to be insufficient to protect children apprenticed to chimney sweepers, an Act was passed not only for the better regulation of chimney sweepers, but also for the safer construction of chimneys and flues (4 & 5 W. 4. c. 35). By this Act, among other provisions, it was enacted, that for the future no child under 10 years of

Climbing Boys.

age should be apprenticed to a chimney sweeper, and that no child under the age of 14 years, not being an apprentice, should be employed by any chimney sweeper. Provision was also made for the improved construction of chimneys and flues in regard to materials, size, and the angle of curvature. The last Act, and the one now in operation, was passed in 1840; it is entitled "An Act for the Regulation of Chimney Sweepers "and Chimneys" (3 & 4 Vict. c. 85.) By this Act it is provided that any person who after the 1st July 1842 shall compel or knowingly allow any child or young person under the age of 21 years to enter a chimney or flue for the purpose of sweeping or coring the same, or for extinguishing fire therein, shall be liable to a penalty varying from 5*l.* to 10*l.*, and in default of payment to imprisonment, with or without hard labour, for any time not exceeding two months. It is also provided that no child under 16 years of age shall be apprenticed to a chimney sweeper; and regulations are made for the proper construction of chimneys to prevent accidents from fire and to facilitate the use of the machine for sweeping chimneys. In addition to these general Acts, powers are included in several local Acts of Parliament for insuring the proper construction of chimneys and for regulating the employment of chimney sweepers.

II. *On the Violation of the Act of Parliament.*

602. In the Appendix to this Report will be found a large body of evidence, all tending to show that in most parts of England the provisions designed by the Legislature for the protection of Children and Young Persons are systematically violated, and almost with entire impunity; and also that erroneous opinions as to the supposed necessity of employing climbing boys are still widely prevalent, not only among the careless and the ignorant, but also among the most influential classes of society. As to the extent of the evil we beg to refer to the evidence of Mr. Peter Hall (Evidence, No. 1), who has for several years been actively engaged as the agent of the Midland Association, the North Staffordshire Association, and the Birmingham Association for the Suppression of the use of Climbing Boys. He states, that although during the last 20 years he has been instrumental in obtaining at least 400 convictions under 3 & 4 Vict. c. 85. the Act in its present state is defective; that it is violated to a great extent in most towns in the kingdom; and that owing to the difficulty of obtaining the necessary evidence, and, in some instances, to the disinclination of magistrates to convict, the enforcement of the Act is greatly impeded.

603. This statement as to the evasion of the law is corroborated by the experience of the Midland Association, in the first Report of which it is stated, that in 1857 legal proceedings were taken in 97 distinct cases of violation of the law (Nos. 51, 52); by the memorial addressed to this Commission by the Birmingham Association; from which it appears that, although during the last five years nearly 500*l.* had been expended by the Society in endeavours to prevent the use of climbing boys, no fewer than 25 children are thus employed in the Borough of Birmingham, several of whom are mere infants (No. 55); by Francis Wedgwood, Esq., Treasurer of the North Staffordshire Association, who states that in the first year, 1856, of the Society's operations 36 informations were laid for violation of the Act in that district alone (No. 52); by Mr. William Wood of Bowden, who has been most active in his efforts to suppress this evil (No. 2); by Mr. Robert Steven, who was one of the principal promoters of the Act, and who states in a letter lately received from him, that he obtained 10 convictions between 1843-46, two in 1859–60; and he has no doubt that both boys and girls sweep chimneys in many parts of the country; by Mr. Browne, Coroner of Nottingham (No. 6); by Captain H. Seagrave, Chief Constable of Wolverhampton Police (No. 24). In further corroboration we beg to refer to the evidence of several Master Sweeps contained in the Appendix, and also to the evidence from numerous towns where boys are extensively used. It has been calculated by persons who have been actively engaged in suppressing the system, that there are several thousands of these children still employed (Nos. 3, 4, 7, 8, 12, 13, 21, 28, 30, 31, 39, &c.)

III. *Increase of Climbing Boys.*

604. The evidence we have received shows that not only is there a great neglect of the provisions of the Act, but that in most parts of the kingdom the evil is decidedly on the increase. For a time after the introduction of the enactment, and owing principally to the zealous exertions of associations and individuals in prosecuting offenders, the use of climbing boys was very much diminished. Thus, Mr. Thomas Clarke, a master chimney sweeper, says, that when the Act was passed in 1840, there were 22 boys employed at Nottingham; that in four or five years no boys were to be seen; but that

Climbing Boys.

in the last five years they have very much increased (No. 4). Mr. Webster, another master, at Newcastle-on-Tyne, says, "when Baker was alive, who was sent down by "the Quakers to look after the boys, they were nearly put down. Baker has not been "dead two years, and we are nearly as bad as ever we were under the old system" (No. 21). Again, Mr. Swift, residing at Buckingham, states, that till within the last year he did not keep a boy; but so many people refused to employ him because he did not, that he was obliged to obtain a boy (No. 31). Mr. John Lytton, a master in large business in London, and who has very actively exerted himself to introduce the sweeping machine, says, he is informed by country sweeps that the use of climbing boys is quite general (No. 39). All this shows that a very general feeling exists among those who are acquainted with the trade, that this return to the old and cruel system of climbing, if not prevented by some more stringent and efficient measure, will continue; a conclusion at which we have ourselves arrived after a full consideration of the evidence we have received.

iv. *Experience of London, Edinburgh, Glasgow, Potteries, Bath, &c.*

605. The state of things in the provinces being as above described, it is satisfactory to be able to say, as the result of our inquiries, that in the metropolis and in several large towns the use of climbing boys is, as a rule, abolished. In reply to our request, Sir Richard Mayne has favoured us with a letter, in which he states that, on inquiry, "it does not appear that any children or young persons are employed as climbing "boys to sweep chimneys within the Metropolitan Police District" (No. 44). In reply to a similar inquiry, Captain Hodgson, of the Police of the City of London, states, that four only of the 41 chimney sweepers resident in the City employ young persons to assist in their business; and that as far as the police can ascertain none of these are employed in climbing chimneys (No. 45). Captain Eyre M. Shaw, Superintendent of the London Fire Engine Establishment, states, that "boys are not openly used for sweeping "chimneys, but small men are employed on particular occasions (No. 46)." Although, as a system, climbing is thus suppressed, it is certain from the direct and very able inquiry of Mr. J. E. White, Assistant Commissioner, that boys are still illegally employed in many parts of the metropolis. Very frequently they are the sons of the men themselves, few, if any, of the large master sweeps using boys for climbing. In the Appendix will be found some examples of this violation of the law in St. Marylebone, Ratcliffe Highway, St. Luke's, Clerkenwell, Whitecross Street, &c. (Nos. 39, 40, 41, 43). One witness, Mr. Beach, says that a boy was found dead in a flue at the west end of the town about two years ago, and that the master was fined; and that another man in Eastcheap was fined last summer for using a boy (No. 40). It is also important to point out that several witnesses allege that the use of climbing boys in London is on the increase. Thus Mr. Vickers, residing in Arrow Street, Southwark, and who is employed by several public institutions, says, "there are, undoubtedly, more boys now in London than "there were a few years ago, though they are kept secret" (No. 41).

606. The cities of Edinburgh and Glasgow afford an instructive example of the benefits that may be insured by judicious municipal control. Under the powers of the Police Act, no person is allowed to act as a chimney sweeper until licensed by the Magistrates and Town Council; and it appears by a letter we have had the honour of receiving from the Lord Provost of Edinburgh, that the practice of employing climbing boys has been discontinued in that city and neighbourhood for nearly 30 years, and that in no one instance, so far as it could by inquiry be ascertained, had the law been evaded. We are also informed by an interesting statement, for which we are indebted to John Lang, Esq., Procurator Fiscal, that by the enforcement of the regulations, the use of climbing boys in Glasgow has been suppressed (No. 57).

607. The main conditions imposed by these byelaws are that no person shall act as a chimney sweeper until he has been licensed; that he shall receive a badge for himself bearing his name, and one for each of the men in his employment; that he shall be liable to a penalty of 5*l.* or imprisonment for 30 days for compelling or knowingly allowing any person under 21 years of age to climb a chimney. It is also provided that the licence may be recalled or suspended. The city officers and police constables are authorized and enjoined to see that these regulations are duly enforced (Nos. 58, 59).

608. Our Assistant Commissioner, Mr. Longe, who has visited Glasgow, attaches great importance to this plan of licensing, and we are of opinion that the best results would be obtained, if such a provision were secured by a legislative enactment.

609. By communications with which we have been favoured from the Procurators Fiscal of Stirling, Dumfries, Perth, Aberdeen, and Ayr, we are informed that in those districts no climbing boys are employed.

Climbing Boys.

610. In Bath, also, as we learn by the report of the Birmingham Association, "with its "thousands of old high houses," there is not a single climbing boy (No. 56). The same may be said of Leicester, the efforts of Mr. Ellis and others having been most successful in that town, where since 1856 the police have been instructed to make inquiries as to violations of the law, and, if necessary, to take proceedings against the offenders (No. 63).

611. In the Potteries, owing to the exertions of the Association, it is stated there is not one climbing boy (No. 13).

v. *Age of Climbing Boys.*

612. One of the worst features of this system is the very early age at which children are put to learn the business. It appears from the concurrent testimony of employers, that the usual age of commencing the work is from 6 to 8 years. Thus, Mr. George Ruff says, "the best age for teaching boys is about 6, that is thought a nice trainable age; "but I have known two of my neighbour's children begin at 5. I once saw a child only "4½ years old with his scraper in hand" (No. 3). Mr. Clark says, "I had myself "formerly boys as young as 5½ years, but I did not like them, they were too weak, and "I was afraid they would go off" (No. 4). Mr. Howgate, Leeds, says, "I was 8 years "old when I began" (No. 8). One man at Hanley, who is a cripple, owing as it is supposed to having been employed so young, began when he was 5 years old (No. 14). A journeyman at Winchester says he began to climb when he was less than 5 years old (No. 34). Mr. Webster, of Newcastle-on-Tyne, says the boys are 8 years old and upwards (No. 21). According to Mr. Bull, of Andover, "about 7 is the common age for beginning, as at 8 a "boy is getting too large" (No. 33). So far as our knowledge of industrial pursuits enables us to form an opinion, there are very few trades or occupations in which in the present day children, as a rule, begin to work at so early an age.

vi. *Hours of Work.*

613. These seem to vary in different places. According to Mr. Hall, the usual number of hours in the small country towns is 8 or 9; but in the larger towns even the youngest work from 12 to 16 hours daily. It is hardly necessary to point out that a considerable part of the labour in this business is performed in the early morning, in some cases even at 3 or 4 a.m. (Nos. 3, 34, &c.)

vii. *Cruelty and Danger of the Climbing System.*

614. Notwithstanding the great mass of evidence demonstrating the evils inseparable from the use of climbing boys, which was laid before the Select Committee of the House of Lords in 1840, we are satisfied from the great extent to which evasion of the law is still practised under the direct encouragement of householders in all parts of England, that the public at large are unconscious of the cruelty and degradation which are inherent in this system. The following statement of a master sweep, Mr. Ruff, of Nottingham, may be received as an example of the suffering which is unavoidable in training these poor infants:—

"No one knows the cruelty which a boy has to undergo in learning. The flesh must be hardened. This is done by rubbing it, chiefly on the elbows and knees, with the strongest brine, close by a hot fire. You must stand over them with a cane, or coax them by a promise of a halfpenny, &c. if they will stand a few more rubs. At first they will come back from their work with their arms and knees streaming with blood, and the knees looking as if the caps had been pulled off; then they must be rubbed with brine again" (No. 3).

615. This description is so painful that we should have hesitated to record it, if it were not so amply confirmed by persons engaged in this business, in all parts of the country. Thus Mr. Clark, a master sweep, says:—

"If, as often happens, a boy is gloomy or sleepy, or anywise 'linty,' and you have other jobs on at the same time, though I should be as kind as I could, you must ill-treat him somehow, either with the hand or brush, or something. It is remembering the cruelty which I have suffered which makes me so strong against boys being employed. I have the marks of it on my body now, and I believe the biggest part of the sweeps in the town have the same; that, (showing a deep scar across the bottom of the calf of the leg,) was made by a blow from my master with an ash plant, *i.e.*, a young ash tree that is supple and will not break, when I was six years old; it was cut to the bone, which had to be scraped to heal the wound; I have marks of nailed boots, &c. on other parts. It was a common thing with sweeps to speak of 'breaking in a boy;' if he was hard, like a ground road or a stone, they gave it up. The other sweeps and I do not like to think of our children growing up to such a business. I believe that in every respect except the sleeping department and washing, the condition of the boys is now as bad as ever as to treatment, perhaps worse, as the men who have boys are only the least respectable" (No. 4).

616. Mr. Stansfield, another master sweep, says,—

"In learning a child you must use violence; I shudder now when I think of it. I have gone to bed with my knee and elbow scabbed and raw, and the inside of my thighs all scarified" (No. 11).

617. The evidence of Mr. Elton, a chimney sweeper at Basingstoke, is to the same effect; he says,—

"Some boys are more awkward and suffer more; but all are scarred and wounded" (No. 35).

618. James Brown, a journeyman at Winchester, says,—

"Some chimneys are rough, and of course that skins you on the elbows and back; some put pads on the knees if you are very bad; saltpetre, what they call brine, is the only way of getting over it; I remember very well having that rubbed on every morning and night" (No. 34).

619. Mr. P. Hall mentions a child not more than 7 or 8 years old, who is at this time at Birmingham, who can scarcely walk from sores and bruises received in climbing (No. 1).

620. In addition to all this necessary suffering, these children are often subjected to the most cruel treatment from their masters, and many of the witnesses state that this is especially the case with those employers who do not use the machine (Nos. 11, &c.) In some cases children have been seriously burnt in consequence of having been compelled by their masters to ascend flues on fire. One such instance occurred at Ashton-under-Lyne in December last, in which a child only seven years old was badly burnt, and where the magistrates fined the offenders 7*l.* (No. 1). In another case at Preston a boy was severely flogged by his master for refusing to go a second time into a hot boiler flue. A fine of 10*l.* was inflicted (No. 2). Mr. Michael Browne, Coroner for the borough of Nottingham, states that he had held two inquests on climbing boys; in one the fire was burning, and something was put over the still hot fireplace to enable the boy to rest his feet on at starting. In this case Mr. Browne attributed the death partly to the air in the chimney not being fit for breathing. A hole was broken in the wall to get the boy out. In the other case the master had lit straw under the chimney to bring the boy down, as it was supposed he was asleep, when in reality he was dead (No. 6). Even within the last two years a child lost his life in the west end of London, having "stuck" in the chimney (No. 40). According to Mr. Peacock of Burslem, Mr. Herries of Leicester has collected 23 cases of boys who have been killed in chimneys by being stifled since 1840 (No. 13).

VIII. *Chimney Sweepers' Cancer.*

621. It is well known to surgeons that sweeps are liable to a most painful and fatal complaint, consisting of a peculiar form of cancer arising from the exposure to soot. Among the men it is known as "the sooty wart" or "sooty cancer." The danger is increased in those cases, which are common, where the boys sleep in their dirty clothes, or what is called "sleeping black." One master says he has known eight or nine sweeps to lose their lives by this disease (No. 4). Some of these boys never change their shirts till they are worn out (No. 11). Others wash only once a week, or even more rarely (No. 4). Mr. Lord, one of our Assistant Commissioners, gives a painful description of the degraded condition in which so many of these poor people habitually live.

"On a subsequent night, at about 10½ p.m., I accompanied the witnesses Simpson and Stransfield to some cellars where they thought we might find some boys 'sleeping black;' so far as the boys were concerned our visit was unsuccessful; my companions said that my inquiries had been heard of and the 'birds had flown;' in one place, however, I saw what they informed me was a specimen of the habits of the ordinary journey sweep, and at the same time an illustration of the practice, for instances of which I was in search, though it happened to be an adult and not a child in the present case.

"I followed Stransfield down some broken stone steps into a dirty and ill-drained area in a district of Manchester, where a dense population is closely packed in small and crowded dwellings. He entered a door, and after some delay returned and took me in with him to a low-pitched unsavoury cellar; the only occupants of which appeared at first to be a woman and two little girls in ragged clothes. After some little time I discovered by the fire light, there being no candle, a small bedstead, which with two wooden three-legged stools and a table constituted all the furniture of the place; on it was a mattress, and on the mattress a black heap, which ultimately proved to be a young man who was sleeping underneath the blanket which he used to catch the soot in his trade of chimney sweeping; he and his blanket were both quite black, and that blanket I was told was the only bed covering for his wife and two daughters who were then preparing to join him; I certainly could see no other.

"Simpson told me that the stench there at times was enough to knock him down, and that he would never go inside, but kicked at the door and smoked his pipe outside till some one came" (No. 12).

622. Other masters are more careful, allowing their boys two suits of clothes, black and clean, and requiring them to wash (No. 3.) There is no doubt that by care and cleanliness much of this evil might be prevented; and considering the painful malady arising from the

Climbing Boys.

present system, it appears desirable that some simple sanitary arrangements should be introduced wherever journeymen reside in the houses of their employers. It is gratifying that in London, owing to the discontinuance for the most part of climbing, this malady, as we have ascertained by inquiry, has of late years decreased. In England there were three deaths in 1862 from the disease.

IX. *Sale of Climbing Boys.*

623. It is known that in former times children were often sold by their parents, or stolen and then sold as chimney sweepers; but the general impression is that this disgraceful practice has entirely disappeared. We find, however, that boys are still occasionally bought and sold. In an interesting paper read before the National Association for the Promotion of Social Science, by Mr. Joseph Jones, of the Midland Association for the Suppression of the Climbing System, in 1858, it is stated that "in the country "young children are still in request for this purpose; they are bargained for by their "parents and master sweeps; they are bought and sold, and the more tender their age "the more valuable they are considered." Another gentleman, Mr. E. S. Ellis, a magistrate of Leicester, and the treasurer of the above association, in a recent letter, says,—

"From facts that have come to my knowledge, I am satisfied that great numbers of these children are regularly bought and sold; and that practically they are as completely slaves as any negro children in South Carolina."... In 1861 a man and a woman were charged before the magistrates of Leicester for having conspired to obtain two illegitimate children, of the ages of 6 and 8 years, under false pretences, from the workhouse. The children were taken to Grantham to a chimney sweeper, but were fortunately recovered.

624. Mr. Francis Peacock, of Burslem, says,—

"I have bought lads myself. I used to give the parents so much a year for them. Sometimes they got 5*l.*, sometimes 50*s.*, and sometimes they let you have them for nothing at all. In Liverpool, where there are lots of bad women, you can get any quantity you want. The last lad we had here I got from Stockport; he was 6 years old. No children could be got in the Potteries. I do know, however, of three cases at Tunstall. These were two women, not married, who sold their boys to a sweep here" (No. 13).

625. Mr. Simpson, of Manchester, says he knows two sweeps there who have sold their own sons for 1*l.* a year to a master sweep at Retford, adding "I call it selling, for that is what it comes to" (No. 12). According to the statement of Mr. Ruff, a systematic plan for buying or kidnapping children at Hull was formerly practised (No. 3). Mr. Clarke also says that parents go hawking their children about, that boys are "trafficked" about from one master to another, ten shillings or so being given; and whether the boy ever gets back again often depends on whether he has a parent to intercede for him.

"As regards selling, it is worse. I hear from sweeps who come from other parts, that this is still the regular thing to this day." "I am confident that if a stop is not put to keeping boys, before long it will be quite the same as it was every way;" "it is as bad as the negro slavery, only it is not known" (No. 4).

X. *Moral Condition.*

626. The concurrent testimony of all the witnesses proves that these climbing boys are greatly neglected, and constitute in fact one of the most degraded classes of the community. One witness says, "I never knew one boy who knew his letters when he "was first put to sweep" (No. 4). Mr. Hall says that in 1851 out of 348 boys he found only six who could write, and 26 who could read, most of them very imperfectly (No. 1). Mr. Stansfield says, "they never even go to a Sunday school; such things ought not to "exist in a Christian country; this degraded condition is owing mainly to the machines "not being used universally" (No. 11). Another witness says, "boys do not get a "chance of going to school" (No. 34). Some of the masters are, however, more conscientious, and send their boys to school (Nos. 31, 33). Being thus neglected, it is not surprising to find that many of these poor boys fall into evil habits and violate the law. "Out of 24 boys between the ages of about 6 and 9, formerly taken out from the "union here (Nottingham) by one sweep during a period of 15 years, there were only "six or seven, or at the most nine, who had not left England from having committed "themselves and got into trouble of some sort" (No. 4). The very nature of the employment itself, independently of bad treatment and neglect, tends to lower the character of these children; it is in truth unsuitable to a human being; and with all these painful facts before us, we regard the moral debasement inseparable from the use of climbing boys as the worst effect of that violation of the law, which the preceding statements illustrate.

87

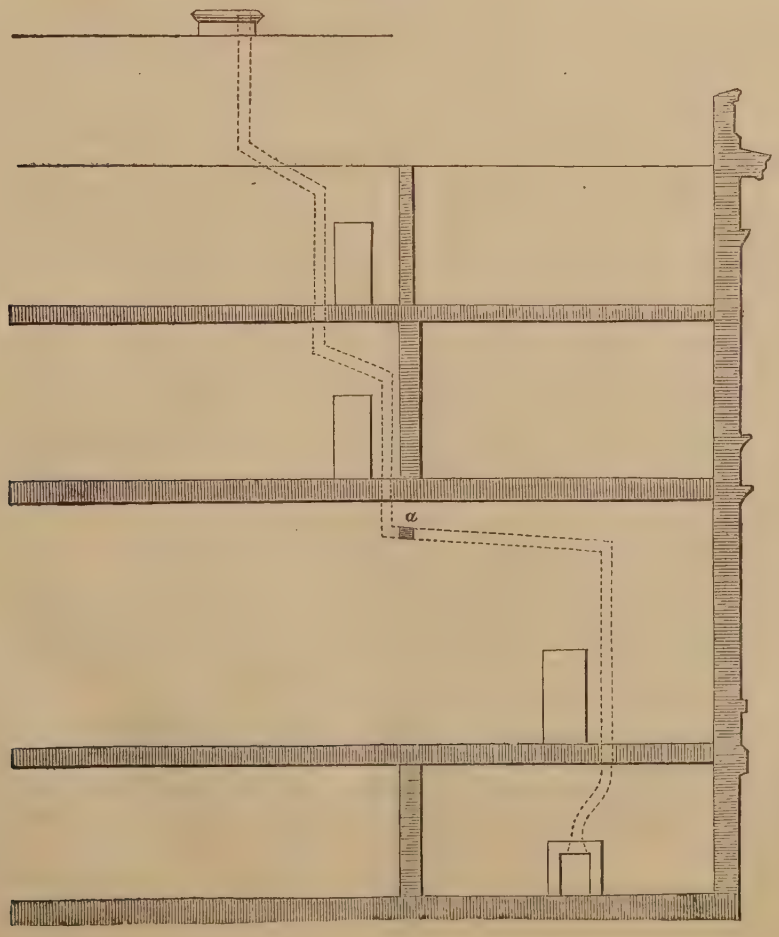
Climbing Boys.

XI. *Efficiency of Sweeping Machine.*

627. If we had not received such numerous indications of an impression widely prevailing, that chimneys could not be effectually swept by the machine, we should have inferred that that question had been finally settled in the affirmative by the conclusive evidence taken by the Select Committee of the House of Lords, and which led to the passing of the Act of 1840. From all parts of England, however, we have the statements of master sweeps and others, that many householders object to the use of the machine, it being alleged that, in the case especially of old and crooked chimneys, the soot cannot be properly removed. In the metropolis, where, with the exceptions above noticed, the machine has alone been used during the 21 years that have elapsed since the "Act for regulating Chimney Sweepers and Chimneys" came into operation, no such doubts are entertained. As the experience of London is so important in the solution of this question, the number of houses being about $\frac{1}{10}$ of the whole of those in England and Wales, it appears desirable briefly to explain the facts of this case. According to the Census of 1861, the total number of houses in the metropolis was 379,222, and in 1851 it was 327,391, thus showing an annual increase in the number of houses of 5,183. Allowing on an average six chimneys to a house, the total number of chimneys may be estimated at 2,375,332, all of which, with some few exceptions, are swept by the machine.

628. In the Appendix a large and unanswerable body of evidence will be found, showing that, with so few exceptions as scarcely to require notice, there is no chimney, however tortuous in its course or otherwise defective, which cannot by proper care on the part of the sweep, and by the introduction of "soot holes," or rounding-off angles where wanted, be effectually swept by the machine (Nos. 3, 4, 11, 13, 18, 31, 39, 40, 43, &c.) In some few instances, especially in the case of flues connected with engine furnaces, we are assured that it is necessary to send a person up the chimney; and for this purpose very small men are sometimes employed, so that even in these restricted cases, which will in time disappear, there is no need of using boys. But it is in evidence that even the worst chimneys can be readily rectified by the introduction of "soot holes." The adjoining wood cut (Fig. 1.) shows a chimney at the Athenæum Club-house, described

Fig. 1.

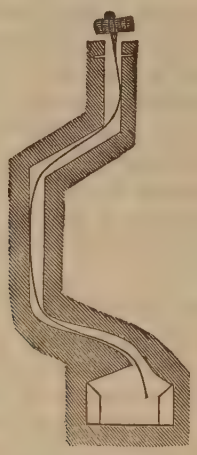


Climbing Boys.

and drawn by Mr. Steven in his pamphlet published in 1845, entitled "Plain Hints on "the Subject of Chimney Sweeping," and which is inserted by the kind permission of that gentleman. It would probably be not easy to find a chimney presenting greater difficulties; it has six angles and one curve; and yet by the soot hole A. it has, as we have learnt upon inquiry, been effectually swept up to the present time.

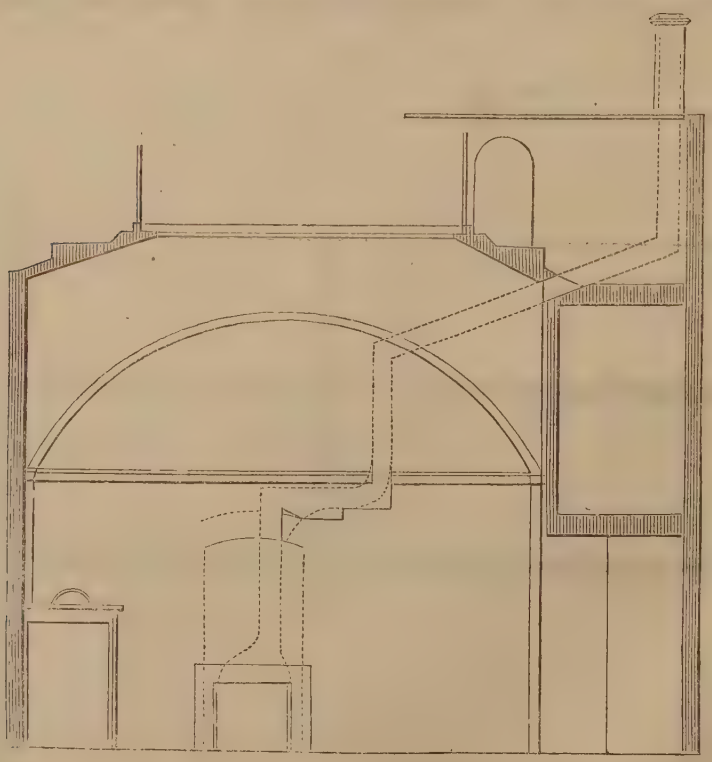
629. The wood cut, Fig. 2., shows that the machine can be effectually used, owing to its elasticity, in an angular chimney.

Fig. 2.



630. Fig. 3. represents a chimney at the Bank of England, which can be swept from the top, two of the angles having been rounded off.

Fig. 3.



631. As there is in the provinces so strong a prejudice against the use of the sweeping machine, arising mainly from the fear of fire, it is important to state on evidence which cannot be controverted, that since the passing of the Act (1840), so far from fires caused by flues* having increased in the metropolitan districts, they have proportionately

* This refers only to fires causing actual damage to the house; of mere fires in chimneys, for which the householder is fined, no record is kept by the fire offices.

Climbing Boys.

diminished. We are indebted to Captain Shaw, Superintendent of the Fire Engine Establishment, for a very instructive table, showing the total number of fires from all causes and the number caused by flues in each year from 1833 to 1862. From this document it appears, that whilst the total number of fires has increased with the increase of new houses, the proportion of fires caused by flues to the total number has considerably diminished, the average per-centage in the 10 years previous to the application of the Act (namely, 1833–42), amounting to 11·8, whilst the average per-centage of the 20 years subsequently (1843–62) was only 8·6; the highest per-centage in any one year being 15·5, namely in 1833, and the lowest 6·4 in 1861, (No. 46). We have received similar information from the surveyors of some of the principal London Assurance Companies; and we are therefore satisfied that all fears of the increased risk of fire from the abolition of climbing boys, are entirely without foundation.

632. In order that the whole question may be fairly stated, we have inserted in the Appendix the evidence of several country sweeps, who, themselves employing climbing boys, and thus violating the law, contend that such agency is necessary, owing to the existence of so many badly constructed chimneys. A considerable amount of practical information, illustrative of the difficulties which are met with, and the best modes of overcoming them, will also be found in the Appendix (Nos. 15, 30, 33, 39, 40, 41, &c.)

XII. *Neglect of the Provisions of the Act of Parliament and Insufficiency of the Act.*

633. We have received from all quarters urgent representations on both these points. So far as this concurrent testimony may be regarded as conclusive, it appears that the following are the principal causes of this failure of the law:—

(1.) The general apathy or the active prejudices of householders.
(2.) The want of efficient machinery for putting the Act into operation.
(3.) The disinclination of magistrates to convict.
(4.) Defects in the Act itself, and the difficulty of proving the offence.

(1.) It is unnecessary to detail the facts showing that owing either to indifference or more active opposition, a large proportion of the public connive at or directly encourage the employment of climbing boys. These feelings are not confined to the lower ranks of society, but, according to the evidence of numerous persons either belonging to or acquainted with this occupation, are shared by noblemen, magistrates, and other influential individuals. For proofs of this we refer to the Appendix.

634. We should not do justice to a large number of master sweeps were we not to state that many of their number, both in a large and a small way of business, have highly distinguished themselves by their disinterested and humane efforts to suppress this cruel system,—frequently to their own pecuniary loss. In our opinion it is the public more than the sweeps who are responsible for the revival and extension of these great evils—physical, moral, and religious—which it was the benevolent object of the Legislature to suppress (Nos. 3, 12, 15, 17, 23, 31, 36, 39, 41, 49, 50, 61, &c.)

(2.) According to all the information we have received, the Act of Parliament is to a great extent a dead letter, owing to the absence of any efficient means of putting it in operation. The police, as a rule, do not appear to interfere, the enforcement of the law not being deemed to be a part of their duty (Nos. 1, 2, 6, 24, 25, 31, 39, 51, 53, &c.) The consequence is that the protection of these poor, defenceless, and cruelly-treated children is left to the casual efforts of humane individuals or to the more systematic interference of benevolent associations. It is certain, however, from past experience that even the most active and meritorious of these societies are altogether unequal to suppress the evils so widely spread (Nos. 52, 54, 55.) The happy results that have attended the enlightened intervention of the police authorities of Edinburgh and Glasgow, as well as the temporary improvement that has invariably followed upon the prosecution of offenders by individuals, demonstrates, however, what would be the result if the law were vigorously and sustainedly administered (Nos. 1, 4, 12, 13, 18, 21, 56, &c.).

(3.) In the discharge of our duty, though with great regret, we deem it necessary to state, as the result of this inquiry, that in many instances a great disinclination has been exhibited by magistrates in convicting offenders when brought before them. In some instances, proofs of the infringement of the law have been demanded which it was difficult or impossible for the prosecutor to furnish, and which, it is alleged, were unnecessary or vexatious; in other cases more direct obstacles were interposed; whilst, not unfrequently, the prosecutor was discouraged and rebuked from the bench. The consequences have been that in many places the offenders have escaped with impunity,

Climbing Boys.

and the efforts of associations and individuals have been paralysed (Nos. 1, 2, 3, 6, 12, 13, 31, 36, 39, 51, 52, &c.).

(4.) A period of somewhat more than 20 years has elapsed since the present Act has been in operation; and we are compelled to state, as the result, that according to the evidence of all who have taken an interest in the subject, it has, to a great extent, failed in its object. One of the greatest defects in the practical working of the measure, is the difficulty of proving the offence. The Act, although prohibiting the employment of children and young persons under 21 years of age in climbing chimneys, and forbidding the apprenticeship of children under the age of 16 years to any person carrying on the trade of a chimney sweeper, allows children and young persons to be employed to assist in the work, as in carrying bags, removing the soot, &c. This opens the door to continual infractions of the law, and in most cases with entire impunity. Chimneys in private houses are usually swept very early in the morning before the inmates are stirring; the sweep comes with a child as it is said to help him; the apartment is often closed, and the boy, in the absence of all witnesses, is compelled to ascend the chimney. The experience of all the associations for suppressing the climbing system, and of every individual who has taken a part in protecting these children, incontestably proves, that so long as master sweeps are by law permitted on any pretence whatever to take boys, it will be difficult or impossible to eradicate this great evil. The introduction of the sweeping machine and similar contrivances has obviated the necessity of employing climbing boys, whilst it is obvious that whatever assistance is required could be afforded by persons above the age of 16 years; thereby obviating one, and that not the least, of the evils attendant on the present vicious system, arising from the fact, that boys who have been brought up to climb, when they become too large for that purpose, find great difficulty in obtaining other employment; a circumstance which, according to abundant evidence, is a fertile source of demoralization and crime (Nos. 2, 3, 11, 12, 13, 39, &c.). The expense of prosecuting is alleged to be a very serious impediment to the application of the Act. In corroboration of this it may be mentioned that the Midland Association expended in one year (1857) 400*l.* in prosecuting 100 cases, and one gentleman alone, at Leicester, paid out of his own pocket in one month 60*l.* in prosecutions. The Birmingham Association have likewise expended 500*l.* during the last five years. It is also certain that the neglect of the clause regulating the construction of chimneys in all new houses and buildings, and especially the disinclination of householders to incur the expense of introducing "soot holes," as prescribed by the Act, offer other and most powerful obstacles to the universal introduction of the machine, as is shown by the evidence of many persons carrying on a large business in London and the provinces (Nos. 1, 3, 13, 30, 35, 40, 42, 43, &c.). The clause in question is the sixth of 3 & 4 Vict. c. 85., and it prescribes among other matters that every chimney, not being a circular chimney of 12 inches diameter, shall be not less than 14 inches by 9 inches; and that, with certain exceptions, no angle shall be less than 120°. It is further provided, that every salient angle shall be rounded off 4 inches at the least. Notwithstanding these regulations, chimneys may be built with angles of 90° and more, provided proper doors or openings are inserted, not less than 6 inches square.

635. In reference to this clause, all persons practically acquainted with the business concur in stating, that the responsibility is not fixed in the definite manner necessary in such a case. The obligation of properly constructing the chimney is confined to the master builder or master workman; but in the opinion of those from whom we have received information, the architect as well as the builder should be held liable for neglect of the law. It is also suggested by Mr. Whitehead, a master sweep at Liverpool, that all plans for buildings having chimneys, should in the first instance be submitted to the proper local authority for approval, as in the case of houses constructed in districts under the Public Health Act (No. 61).

636. It may be proper to state that several large employers, who have discontinued climbing boys, have described the danger attending the use of the machine when applied from the top of the chimney; accidents having in such cases often arisen by falls from the roof; and they suggest that some measure should be provided for the protection of the men when thus engaged in obeying the law (No. 39–41).

637. Having endeavoured to present a faithful picture of the existing state of this trade, we submit that a case has been established for some modification of the law now in operation. We have from various quarters received suggestions for improvements in the Act of 1840 (Nos. 1, 12, 39, 42, 52, 55, 61, &c.); and after careful consideration we

have arrived at the conclusion that the best results might reasonably be anticipated from the following measures: Climbing Boys.

1. That no person using the trade of a chimney sweeper shall be permitted to employ in his business in any capacity whatever any person under the age of 16 years, whether as an apprentice or otherwise.
2. That the clause of the Act above referred to relative to the proper construction of chimneys, the introduction of "soot holes," &c. should be made more stringent by requiring that the plan of all new houses should be approved of by the proper local authority, and by rendering the architect responsible as well as the builder for any violation of the law.
3. That no person should be allowed to carry on the trade of a chimney sweeper until he has received a licence from the magistrates or other competent authority, revocable as described at p. 318.
4. That it should be made a part of the duty of the police to make inquiry as to whether the provisions of the Act of Parliament are attended to in their respective districts, and to take proceedings where requisite for enforcing the Act. (No. 59.)
5. That in all cases where journeymen chimney sweepers are lodged by their employers, suitable sanitary arrangements to ensure cleanliness and prevent disease should be enforced by the officers of the Board of Health or other local authorities.
6. According to the existing Act, imprisonment can only be inflicted on default of payment of any penalty that may have been awarded for violation of the law. But there are some cases of excessive cruelty, involving even danger to life, as in the instance at Ashton-under-Lyne, referred to above, where a child 7 years old was severely burnt by being sent up a chimney on fire. We submit therefore that it would, in the interests of humanity, be proper that the magistrate should be empowered, if he see fit, in cases where cruelty or ill treatment has been proved, to inflict imprisonment, with or without hard labour,* for any time not exceeding two months, the limit prescribed by the Act, instead of imposing a penalty. A a discretionary power of this kind is given by the Glasgow Police Act (No. 59).
7. Our attention has been called to the impediment occasionally caused by the large amount of the pecuniary fine, the minimum being 5*l.*, which, it is alleged, some magistrates hesitate to impose; and we concur in the opinion expressed by Mr. P. Hall and other persons, who have promoted a large number of prosecutions, that the ends of justice would be advanced if the penalty were to be fixed at from 40*s.* to 10*l.*, the maximum at present settled.

638. We cannot more suitably conclude this Report than by quoting the forcible language of the late Lord Cockburn, when passing sentence on a man who had been convicted in 1840 for employing a child who lost his life in a chimney at Glasgow :—

"It was not only a scandal to the law to allow the sweeping of chimneys by children, but it was a deep disgrace on society to perpetuate the trade—society being, in point of fact, art and part in the commission of the inhumanity. It was indeed monstrous to allow any child to be employed in such a way, and if the trade was but once put down, it would be looked upon with so much horror that it would be difficult to convince the next generation that it had ever existed in a country claiming to be Christian."

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639. The branches of manufacture to which the recommendations of this Report apply, employ the following number of children and young persons :— Number of children, &c. in the branches of manufacture included in the recommendations of this Report.

The Potteries - - - -	11,000 (p. xiv.)
The Lucifer Match Manufacture - -	1,613 (p. xlix.)
The Percussion Cap Manufacture - -	150 (p. lvii.)
The Paper-staining Manufacture - -	1,150 (p. lix.)
Finishing and "Hooking" - -	2,300 (p. lxxv.)
Fustian cutting - - - -	†1,563 (p. lxxvi.)
Total children and young persons employed	17,776

* By section 8 of 3 & 4 Vict. c. 85., it is already provided that hard labour may be imposed in default of payment.
† Subject to the deduction stated in s. 566.

Climbing Boys.

640. If Parliament should think fit to adopt our recommendations with regard to the above-named manufactures, the considerable number of upwards of seventeen thousand more children and young persons will be placed under the protection, and be benefited by the privileges of the Factory Act.

641. The Returns to Parliament of the number of persons subject to the regulations of the Factory Act, and other analogous Acts, give the total number of children, and the total number of males between 13 and 18, but they do not distinguish the females between 13 and 18 from the adult females. We are consequently unable to say what proportion the above number bears to the total number of children and young persons under regulation.

642. We beg leave to refer to our statements at pp. lxxxii., lxxxiii, respecting the inquiries which our Assistant Commissioners are now conducting, and our anticipations as to the subjects which it will be our duty to consider in our next Report.

643. All which we humbly certify to Your Majesty.

Witness our hands and seals, this
15th day of June, A.D. 1863.

(Signed) HUGH SEYMOUR TREMENHEERE. (L.S.)
RICHARD DUGARD GRAINGER. (L.S.)
EDWARD CARLETON TUFNELL. (L.S.)

2, Victoria Street, Westminster, S.W.

APPENDIX.

REPORTS AND EVIDENCE

OF

ASSISTANT COMMISSIONERS.

APPENDIX.

CONTENTS.

	Page
The Pottery Manufacture :—	
Report of Assistant Commissioner	1
Evidence	10
The Lucifer Match Manufacture :—	
Report of Assistant Commissioner	41
Evidence	45
The Percussion Cap Manufacture :—	
Report of Assistant Commissioner	105
Evidence	107
Paper Staining :—	
Report of Assistant Commissioner	119
Evidence	122
Finishers, Hookers, &c. :—	
Report of Assistant Commissioner	144
Evidence	147
Fustian Cutters :—	
Report of Assistant Commissioner	159
Evidence	164
The Lace Manufacture :—	
Report of Assistant Commissioner	182
Evidence	187
The Hosiery Manufacture :—	
Report of Assistant Commissioner	264
Evidence	266
Evidence as to the violation of the Law, relative to the Employment of Climbing Boys in Sweeping Chimneys	295
Memorial of Employers in the Potteries	322
Abstract of Factory Act	322
Laws and Regulations of Foreign Countries respecting the Labour and Education of Children and Young Persons employed in Trades and Manufactures	325
Instructions to Assistant Commissioners	337
Circulars	338
Tabular Forms	339

THE POTTERY MANUFACTURE.

GENTLEMEN, 57, George Street, Portman Square, Jan. 30, 1863.

The Pottery Manufacture.

Mr. F. D. Longe.

I HAVE the honour to transmit to you the evidence which I have collected on the employment of young persons and children in the pottery trade.

The various manufactures which would seem to be included under this category may be divided for the purpose of this inquiry into the two following classes:—

(1.) The manufacture of fine earthenware, porcelain, and fine ornamental ware, &c.

(2.) The manufacture of coarse or brown ware, stone ware, terra cotta, architectural and encaustic tiles, &c. All these manufactures have certain processes in common, and two or more of them are frequently carried on in the same establishments, but it is only in the manufactures which I have included in the first of the above classes that the employment of young children prevails to any great extent.

The principal seat of the fine earthenware and porcelain manufacture is the district in North Staffordshire known as the Staffordshire Potteries. This district consists of the towns of Longton, Fenton, Stoke-on-Trent, Hanley with Shelton and Etruria, Burslem with Cobridge and Longport, and Tunstall. These towns closely adjoin each other, within a distance of about nine miles from south to north. They contain a population of 101,302 persons, belonging chiefly to the working classes. A large portion of the working population are employed in the pottery trade, a considerable number in the coal and ironstone mines, of which there are more than 200 in the neighbourhood. Several ironworks have also been established in the district within the last few years.

The pottery manufactories in this district were a subject of investigation on the occasion of the former Children's Employment Commission in 1841. They also form the subject of a late Report by Dr. Greenhow, with reference to the mortality from lung diseases in the district. *See* Third Report of the Medical Officer of the Privy Council, 1860. Mr. Scriven, the Assistant Commissioner to the former Children's Employment Commission, gives the following general character of the working potters. "The operatives are in their general character a quiet, orderly people, possessing not only "the necessaries, but in most instances the comforts and luxuries of life; their habitations are respect-"able, cleanly, and well furnished." From my own observations and intercourse with them I can safely adopt this description; indeed, all persons speak to an improvement in the habits of the potters during the last 20 years. From information which I have received from the Poor Law and Police authorities, it appears that this district, considering the large number it contains of people depending upon their labour for their livelihood, holds a very good position both as to pauperism and crime

The pottery manufacture offers employment of some kind or other to persons of every age and sex; several members of the same family are generally to be found working in the same manufactory.

Estimated numbers of adults, young persons, and children employed in the trade.

The following estimate as to the number of adults, young persons, and children employed in the pottery manufactories in this district has been obtained from the returns sent in by the employers in the towns of Stoke, Hanley, Fenton, and Longton, and from information I have received as to the number and character of the other manufactories in the district:—

Approximate number of earthenware and china manufactories in the district		180
Operatives of all kinds employed in these manufactories		30,000
viz.—	Adults	19,000
	Young persons	6,500
	Children	4,500

I should observe that these numbers, particularly those of the young persons and children, are liable to great fluctuation. Probably the above numbers are less than they would be at a time when the trade was not so depressed as it has been during the last year.

Number of hands employed in separate manufactories.

The number of hands, and the relative numbers of adults, young persons, and children employed vary considerably in different establishments, according to the character as well as the extent of the trade carried on in them. The number of hands employed in separate manufactories varies from about 600 to 30 and 40. There are few firms which employ more than 600 hands. Several employ about 200.

The earthenware manufacture requires the largest number of operatives, and entails the greatest amount of labour upon them, owing to the quantity and weight of the ware produced. In the china manufacture the quantity of material used is comparatively very small. In the manufacture of Parian vases and other ornamental ware, which forms another branch of the trade, the labour is of a light character.

Numbers of children in different employments.

As there is a great diversity of employment in this trade, so the condition of the young persons and children differs widely in the several employments in which they are engaged.

Assuming the number of *Children* employed to be 4,500, they may be thus distributed:—

Males.

Mould runners and jigger turners	1,850	
Assistants in the dipping house, handlers, warehouse, packing, errand boys, &c.	950	
		2,800

The Pottery Manufacture.

Mr. F. D. Longe.

Females.

Paintresses and burnishers	1,100	
Paper cutters, &c.	600	
		1,700
Total children		4,500

Ages of children.

There seems to have been no improvement as to the age at which children are employed since Mr. Scriven's inquiry in 1841. The ages of the children stated in the tabular forms filled up by the employers in the towns of Hanley, Fenton, and Longton, furnish an average which may be considered as representing the average age of the children employed in the whole district at the time those forms were filled up. I have found, however, that in one department of the trade many children are employed at the ages of 6, 7, and 8. Vide *infra*, page 3.

Numbers of young persons in different employments.

The *Young Persons* between 13 and 18 employed in the trade, the numbers of whom I have estimated at 6,500, may be thus distributed:—

Males.

Mould runners	650	
Apprentice potters, assistants in the dipping house, warehouse boys, fireman's assistants, &c.	2,850	
		3,500

Females.

Apprentice paintresses, and burnishers, transferrers, assistants to throwers and turners, warehouse girls, &c.	3,000
Total young persons	6,500

Hours of work of children and young persons.

The usual hours of work throughout the district are similar to those stated by the employers in the tabular forms. They are generally from about 6½ a.m. to 6½ p.m. On Saturday work ceases in some manufactories at 2 p.m., in others at 4 p.m. In some manufactories work is continued to 7 p.m. on Fridays. These hours, however, are frequently exceeded in the case of pressing orders, on which occasions children as well as adults are employed to 8 or 9 p.m.; and sometimes, but I believe very rarely, through the whole night. Some of the children are also liable to be worked beyond the usual hours through the irregular habits of the men for whom they work.

State of places of work.

The various operations connected with the manufacture of pottery are all carried on in the same establishments. It would be quite impossible to give a particular description of the numerous shops, rooms, and other places of which these manufactories consist, or to make a general statement as to the condition of any particular manufactory. Most of the manufactories consist of buildings which have been erected at different times without any arrangement or uniformity. In nearly all the older buildings, which are still too common, the rooms are very small and low, particularly the potters' shops. In the modern buildings, particularly those which have been erected during the last few years, the health and convenience of the workman have been more considered, the workrooms are built on a much larger scale, are more lofty, and are far more capable of ventilation.

Description of the employments in which children and young persons are engaged.

The various employments in the pottery manufacture may be divided into two departments, the potting department and the finishing department. The condition of the children and young persons employed in the latter is very much better than of those employed in the former department.

I will notice shortly those employments in which children or young persons are engaged, and point out particularly those classes of children and young persons whose condition calls most for consideration.

The potting department comprises the various "branches" of workmen who are employed in the formation of the ware.

Slipmakers.

Slipmakers.—These workmen are employed in preparing the clay for the use of the potters. The materials of which the clay is composed are first reduced to a fluid state, and mixed together. The clay, or slip, is then dried either by heat on the slip kiln, or by pressure in the hydraulic press. This machine is being gradually brought into general use. The process of drying the clay on the slip kiln is very unhealthy, as the workman has to work in the midst of hot steam. Boys of 14 or 15 are sometimes employed as assistants to the slipmen, but no children are employed in this work.

Modellers and mouldmakers.

Modellers and Mouldmakers.—These are highly skilled artizans, who are employed in preparing the moulds upon which many kinds of ware are formed. These workmen generally employ errand boys, but their operations do not require the assistance of children. Boys are taken as apprentices to this branch.

Throwers.

Throwers.—All round ware was formerly made by the thrower, but now many kinds of bowls, cups, &c. are made in moulds by workmen belonging to another branch.

The thrower generally requires the assistance of two women or girls, one to turn his wheel, and the other to "take off" the ware when formed. In Mr. W. T. Copeland's manufactory there are two throwers' wheels worked by steam machinery. This machinery has been in use about 50 years, but has not been extended. It dispenses with the labour of the woman to turn the wheel, but requires a boy in her place to regulate the speed of the wheel. Apprentice throwers employ girls of 14 years of age and upwards as their assistants. These women and girls are hired by the employer. The throwers form the highest and best paid branch of the potters; but are now few, compared with the other branches.

Turners.

Turners.—These workmen are employed in finishing the round ware after it has been shaped by the thrower. A woman or girl is generally employed to work the treddle and assist them in their work. In some cases boys are employed instead of the women. In Mr. W. T. Copeland's manu-

factory there are 11 lathes, which are turned by steam power. In this case the labour of the women or boys who work the treddle is dispensed with, nor is any boy required to regulate the machinery. Apprentices are also employed in this branch. The Pottery Manufacture. Mr. F. D. Longe.

Handlers.—These workmen are employed in making and fitting handles to cups, jugs, &c. In most cases they employ one or two boys to make the handles. These boys are very young. The operation of forming the handles, by throwing their chests on the moulds, would seem to be very injurious to children if continued for many hours. Handlers.

Flatpressers.—These workmen form one of the most numerous "branches." It includes dishmakers, platemakers, saucermakers, and cup and bowl makers. A great number of very young boys are employed by these men. The dishmaker generally employs one boy; the platemaker, two; the saucermaker, three; and the cupmaker three and sometimes four. The transfer of the manufacture of some kinds of cups and bowls from the thrower to the presser is one of the principal causes of the increase in the number of young boys employed in the trade. The condition of these boys calls for consideration more than that of any other class of children. Flatpressers.

The following statistics show the early age at which children are employed in this branch:— Ages at which flatpressers' boys commence work.

The average age at which 58 children in the manufactories in Stoke had commenced work was 9 years 3 months.

One had begun to work between the ages of		6	and 7.
Six	„ „	7	and 8.
Twelve	„ „	8	and 9.
Nineteen	„ „	9	and 10.

The average age at which 62 children in the manufactories in Hanley had commenced work was 8 years 1 month.

Seven had begun to work between the ages of		6	and 7.
Fifteen	„ „	7	and 8.
Twenty	„ „	8	and 9.
Eight	„ „	9	and 10.

The average age at which 15 children in the manufactories in Fenton had commenced work was 8 years 11 months.

One had begun to work between the ages of		6	and 7.
Two	„ „	7	and 8.
Eight	„ „	8	and 9.
Two	„ „	9	and 10.

The average age at which 23 children in the manufactories in Longton had commenced work was 7 years 8 months.

Two had begun to work between the ages of		5	and 6.
One	„ „	6	„ 7
Nine	„ „	7	„ 8.
Five	„ „	8	„ 9.
Three	„ „	9	„ 10.

In most cases, upon inquiring into the circumstances of those children who had begun to work at the earliest ages, I found that they were either the children of widows, or that their fathers were incapable of working, or of drunken habits. Many of the younger children were the children of colliers.

These boys are employed:—(1.) In turning the "jigger," a simple machine for turning the wheel or whirler on which the workman forms the ware. (2.) In carrying the moulds with the moist ware pressed upon them into an adjoining drying room or "stove," and placing them upon shelves to dry. (3.) In assisting the workman in "wedging" the clay, "batting out," and cleaning the ware when dry. (4.) In sweeping out the shops and stoves, lighting fires, &c. Employment of flatpressers' assistants.

The youngest boys are generally employed in turning the jigger. This operation, though not requiring much strength, is very hard work for children to be engaged in during the whole day. Turning the jigger.

Some manufacturers are in favour of the application of steam power to turn the whirlers, by which means the labour of their jigger boys would be entirely dispensed with. The objections to its introduction appear to be—(1) the inconvenient arrangement of the shops in most manufactories for the application of shafts; (2) the impossibility of steam power being profitably used in the smaller manufactories; (3) the abhorrence of steam power by the workmen, as tending to diminish the number of workmen required in the trade. Formerly all flatpressers turned their own whirlers, but when an increase of trade required a more rapid production, the employers gave the workmen the assistance of the jigger. This machine, while it relieved the flatpresser of much of his labour, increased the number of young children employed.

Close at hand to the flatpresser's bench is the "stove." These "stoves" are little rooms, or rather ovens, about 13 feet square, and from 8 to 12 feet high, partitioned off from the shop. They are fitted inside with shelves, on which the moulds with the moist ware upon them are placed in order that the ware may be dried sufficiently to be removed. In the centre is the stove, which I have often observed red hot. I tested the heat of three of these drying rooms or "stoves." In one the thermometer rose to 120, in one to 130, and in the third to 148. As the potter forms the plate or saucer on the mould, the mould runner runs off with it into the "stove." In proportion as the number of moulds with which the workmen is supplied is limited, has the heat of the stove to be raised, in order that the moulds may be the more quickly dried, so as to be used again. Besides entering to place the moulds, the boy has also to enter to turn them, in order that the ware may not be bent in drying. Mould running.

The practice of using great heat for the purpose of drying the moulds quickly is discouraged by many employers, as not only injurious to the health of the workmen themselves and their boys, but

The Pottery Manufacture.

Mr. F. D. Longe.

very prejudicial to the interest of the master. It causes a great consumption of coal, and the moulds are sooner worn out.

Remedies for the "hot stove" system.

Several manufacturers have lately been attempting to remedy the evil of the hot stove system, by supplying their workmen with a large number of moulds, and increasing the capacity of the stove; and in a few cases I have found workmen supplied with such a number of moulds as to enable them to do their day's work without heating the stove at all during working hours. Another mode of removing the evil is the substitution of some form of oven or stove which would neither require the entrance of the boy or workman, nor diffuse so much heat through the workshop. Such an oven has been used with much success in Mr. Pearson's manufactory at Cobridge. Until some great change is made in the "hot stove" system, the most efficient mode of ventilation can only mitigate the evil, which is undoubtedly one of the principal causes of injury to the health of the potter.

Wedging clay.

Wedging Clay.—This is beating or throwing the clay in order to clear it of the air which is left in after its preparation by the slipman. Clay which has been prepared by the kiln process requires a far greater amount of wedging than that from which the water has been expelled by pressure. Neither process, however, renders the clay fit for use without being first subjected to the operation of wedging. This is very hard work, and I believe in most cases it is thrown almost entirely upon the boys. In some manufactories the pugmill is used for kneading the clay after it has been prepared by the slipman. The clay having been passed through this machine requires very little wedging. The cost of this machine is very little, as it may be worked either by horse or steam power. I believe the only reason why it is not in general use is that the workmen object to the slight deduction from their wages which some manufacturers require.

"Batting out," &c.

The boys employed by saucer and cup makers assist the workmen by preparing the "bats" of clay and placing them on the moulds, spunging the cups when made, &c. Cupmakers sometimes employ a girl to do this in addition to their boys.

Boys come earlier and stay later than the men.

These boys are generally required to come before the men in the morning to light the fires in the stoves, and to stay after the men have done work to sweep out the shops and stoves.

The above description shows the ordinary employment of these boys; they are, however, liable more than any other class of children to be worked beyond the regular hours. It is still too frequent a practice among the flatpressers, as with other potters, to waste the first days of the week in idleness or the beerhouse, and then work themselves and their boys until 8 or 9 o'clock on Thursday and Friday in order to recover their lost time.

Treatment of these boys by the men.

Meal hours.

In other respects these boys are generally well treated by the men; ill usage very rarely occurs. They generally have their half hour for breakfast and their hour for dinner at the usual time, though the dinner hour is liable to be curtailed on the later days of the week by irregular workmen. In many cases where these children live near the manufactories they go home to their meals, but I have frequently found them eating their dinner in their workshops or in the yards of manufactories. The facilities offered for cooking operations by the fires with which the potters' shops and rooms are so plentifully supplied have induced a practice far too general of converting the workshop into a kitchen and dining room at meal-times.

Hiring and wages of the flatpressers' assistants.

These workmen, except the young apprentices, are all paid on the piecework system, while they hire their boys for the day or week, as they may require their assistance. Girls are very rarely employed at this work in this district; the practice of employing girls as mould runners or jigger turners is disapproved of by all parties. The average weekly earnings of these boys are about 3*s.* or 3*s.* 6*d.* Boys of 9 to 11 years of age get from 1*s.* 6*d.* to 2*s.* 6*d.*; boys of 12 to 14 get from 3*s.* to 5*s.* In a few instances boys of 14 or 15 years of age earn as much 6*s.*

The means of the workman with respect to the wages he can afford to pay to his assistants may be thus shown. The price for the most ordinary kind of full-sized plates is 3*s.* per score dozen. A good workman can make two score dozen of these plates per day. His earnings, therefore, for a full week's work would be 36*s.*; out of this sum he would pay about 8*s.* to his two boys. Saucer-makers and cupmakers, employing three or four boys, would pay them about 9*s.* or 10*s.*

The wages of these boys appear to have been considerably increased since the time of Mr. Scriven's inquiry, without a corresponding increase in the prices of ware paid to the men. This may be attributed partly to the increased demand for boys of the age of 12 and upwards in the coal and iron trade, and partly to an increased aversion on the part of the more respectable parents to employ their children at this work. Those who are employed in most cases belong to the poorest families; the ragged class of the district being almost entirely absorbed in this employment.

Effects of their work on the physical condition of the flatpressers' assistants.

Many of the medical men whose evidence I have obtained speak in very strong terms of the injuries caused to the constitutions of these boys by their employment; though it does not appear to be the cause of any specific disease in boys who are not predisposed to disease by a congenital weakness of constitution. I have myself observed a great many of them at their work, and questioned them on the subject, but I found very few who had suffered from any ailment which seemed attributable to their work. They generally appeared brisk and happy, notwithstanding their dirty and ragged appearance. It would seem that the injurious effects of their employment do not show themselves in youth, further than by impeding growth. When the mould runner has become a young journeyman the serious effects of many years' work in these shops and stoves become more palpable.

Hollow ware pressers.

Hollow Ware Pressers.—This branch of potters is also very numerous. They are employed in the manufacture of jugs and other kinds of hollow ware, which are formed by pressing the clay inside the mould. They do not employ any assistants, but themselves turn their whirlers, and carry their moulds into the stoves. I have been informed that the workmen belonging to this branch suffer more from asthma and pulmonary diseases than the flatpressers. The employment of the journeymen hollow ware pressers is for the most part more laborious than that of the flatpressers, owing to the

size of the ware they manufacture, *e.g.*, ewers and soup tureens; while, in addition to their labour, these workmen are subjected to the injurious effects of the hot stove. The Pottery Manufacture.

A great number of the boys are employed as apprentices in these two branches. They are apprenticed to the employer, generally at the age of 14. Notwithstanding the reduction of the stamp duty to 2*s.* 6*d.*, the practice of binding apprentices by deed is by no means general. Apprentice potters are paid weekly wages of 2*s.* to 3*s.* 6*d.* for the first two years; after that time they begin to work on the piecework system, earning journeyman's wages, with a deduction of half or one-third of their earnings in favour of their employer. The practice of employing a great number of apprentices, and taking them at the age of 13 instead of 14, is very common in a certain class of manufactories —a practice which is not only very prejudicial to the interests of the trade, but is probably another great cause to which the bad constitutions of the potters is to be attributed. This system, so advantageous to the employer, who requires quantity rather than quality of goods, tends directly to encourage the young potter greatly to overwork himself during the four or five years during which he is employed on the piecework system, but at low wages. Mr. F. D. Longe. Apprentice flatpressers and hollow ware pressers.

Ovenmen, Firemen, and Placers.—These workmen are employed in firing or baking the ware in the kilns. No children are employed at this work, but boys of 15 years of age and upwards are generally employed by the men to assist them in keeping up the fires and other work. This is the only employment in which nightwork is regularly required. I believe, however, that the lads are never worked during more than two or three nights in a week. This employment also subjects the workman to great vicissitudes of heat and cold. The operation of emptying the oven is generally commenced while its temperature is still very high. Overmen, firemen, and placers.

Saggermakers.—These workmen make the clay cases in which the ware is baked. This work requires much strength, owing to the quantity and weight of the clay. Boys of 16 years of age and upwards are employed by the saggermakers, but no children. Saggermakers.

Dippers.—The operation of dipping the ware is a specially injurious employment, owing to the poisonous nature of the lead which generally forms a large ingredient in the glaze. Boys of a very young age are employed in carrying the ware to the dipper, and are thus compelled to spend much of their time in the poisoned atmosphere of the dipping house. The injurious effects of the dipping tub are well known. Few dippers continue many years at their work without suffering from painter's colic or paralysis; many become crippled at an early age. Boys of about 14 or 15 years of age are employed to "gather" the ware from the dipper; they are brought more in contact with the glaze than the other boys. Women are also employed in the dipping house to brush the ware. Nearly all the boys whom I found engaged in this work had felt its effects more or less; some had suffered very seriously. There seems to be ground for supposing that some constitutions are more affected by the lead poison than others. The boys employed in the dipping house are generally a better class than the flatpressers' assistants. Their wages are much higher and the work is less laborious. The glaze in general use at the present time is less injurious than that which was formerly used, in which arsenic formed an ingredient. There seems to be great reason to hope that even the lead may be dispensed with, without rendering the glaze less efficient or more costly. Dippers.

The employments in the finishing department, in which children and young persons are engaged are—

(1.) Printing.
(2.) Painting.
(3.) Gilding and burnishing.

Of the ware produced in the different manufactories, a part is white ware, that is, ware which is not subjected to any colouring process. A great quantity of this ware is made for the American market. The rest of the ware is decorated by one or other of the above processes, or by other processes in which adults only are employed.

Printers employ two women or girls as "transferrers" and one young girl as a "paper cutter." These paper cutters are generally very young; many of them begin to work at 8 years of age; their regular work is cutting into pieces the paper on which the pattern has been impressed by the printer; these pieces are then applied to the ware by the transferrers. They are also employed in lighting the printer's fire, fetching water, &c. Next to that of the flatpressers' boys, the condition of these children most demands consideration, on account of the very young age at which they are employed, their liability to be overworked, and the great heat of the rooms in which they work. The printers' rooms are generally very hot and badly ventilated; rooms of small and low dimensions are often fitted with two or three printer's stoves. Printing.

Painters.—This branch includes persons of both sexes and every age, from the talented artist, who paints flowers and landscapes on the most costly porcelain, to the little girls of 9 or 10, who are employed in painting cheap earthenware and ornaments. A great number of young girls are employed in this work; their occupation is for the most part refined and agreeable and not necessarily injurious to their health. The children and young persons of different sexes generally work in different rooms, under the superintendence of respectable over-lookers, or of the adults who are engaged in the same employment. I have entered several paintresses rooms in different manufactories, and always found them well dressed, well behaved, and apparently enjoying their occupation. Medical evidence, however, shows that they are liable to be seriously injured by being kept for so many hours at this sedentary work in crowded and badly-ventilated rooms. In the better class of manufactories the painting rooms are long and spacious, and in some cases lofty and well built for ventilation; but in many manufactories they are low and small. The girls work at long tables placed under the windows, which it would be impossible for them to open for the purpose of ventilation without subjecting themselves to draughts, which would be probably more injurious to their health than even the close atmosphere which they are breathing. The employment of children and young persons in this branch is Painters.

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generally confined to the regular hours of work; but they are liable to be employed considerably beyond those hours in some manufactories at periods of brisk trade. The apprentice paintresses are generally taken at ages of 10 to 12. In one manufactory, that of Messrs. Herbert Minton and Co., they are not taken under 13 years of age. During the first year they are of little use to their employers; they are paid weekly wages of 1*s.* upwards during the first three years, a certain amount of work being allotted to them according to their efficiency. They then begin to work on the piece-work system, with certain deductions to the employers, as in the case of the apprentice boys. The wages of journeywomen paintresses average about 9*s.* or 10*s.* per week, though when they work overtime they can earn considerably more than that sum.

The persons employed in the operation of gilding the ware are generally men and boys, though in some of the small manufactories children of both sexes are employed. The number of persons employed exclusively at this work are very few. Women and girls are employed to burnish the gold which has been laid on the ware by the gilder. The condition of the children and young persons engaged in this branch is the same in all respects as that of the paintresses.

The operation of scouring china, *i.e.* dusting and cleaning the ware from the fine flint powder in which it has been fired, is a very injurious employment. The persons engaged in this work are women. No children are ever employed in it, but many young women are tempted to sacrifice their health for the high wages which this employment affords. The number, however, of women employed exclusively at this work is not great, owing to the comparatively small quantity of china ware manufactured.

In addition to the children and young persons employed in the various departments which I noticed, a great many of both sexes are employed in the warehouses in sorting and packing the ware. There is nothing in this employment to call for any particular remarks.

The manufacture of Parian figures and vases and other ornamental ware forms a distinct branch of this trade, which is carried on in some of the larger establishments in addition to the manufacture of pottery. The operations of several small manufactories are confined to this work. Young persons and children are also employed in this branch of the trade, but their numbers are comparatively few, and the work requires more ingenuity than labour.

The manufacture of encaustic tiles is carried on by Messrs. Herbert Minton and Co., at Stoke. This is a new employment during the last 20 years. Several boys are employed in this work. The tiles are made by the pressure of powdered clay, slightly damped, into moulds. The operation of pressing the tiles, which is done by very powerful machines worked by hand power, fills the shop with dust in a greater or less degree as the powder is more or less damp. The inhalation of this dust is injurious, but it does not appear that the boys or workmen have actually been much injured by it.

There are also a few establishments in the district connected with the pottery trade in which stilts and cockspurs are made. These things are little pieces of clay of different shapes, on which the ware is placed in the saggers preparatory to its being fired. In one of these manufactories, that of Messrs. Buller and Mugford, at Hanley, a great number of very little children, chiefly girls, are employed. They all work in one long building. There were 30 at work at the time of my visit, of ages from 9 to 14. The labour of these children is simple and uniform, consisting merely of picking the stilts and cockspurs out of the dies in which they have been pressed. This building was very well built for ventilation.

The stilts are dried by means of an oven, which neither requires the entrance of the children, nor does it heat the workshop. The dies with the moist clay pressed in them are laid upon an iron rack or horse, which is rendered easily moveable by means of wheels and rails. As soon as the rack is loaded, the door of the oven is opened, and the rack is pushed in by the children, and left until the clay is sufficiently dry to be removed from the dies. Although, perhaps, an oven or "stove" of the same size and form as this could not be used for drying ware, it suggests a principle on which an oven might be made for the potter's use, which would effectually remedy the evil which I have already noticed.

In accordance with your instructions, while investigating the condition of the children and young persons employed in this trade, I have made a few inquiries with reference to their state of education, and have personally examined several of the youngest children I found at work.

The following statistics show the state of education amongst the youngest children employed in the manufactories which I visited in the under-mentioned towns:—

Number of Children examined.	Could read.	Could not read.
Stoke-on-Trent (flatpressers' boys and paper cutters). 43	27 or 62·7 per cent.	16 or 37·2 per cent.
Hanley, Shelton, and Etruria (chiefly flatpressers' boys). 131	74 or 56·4 „	57 or 43·5 „
Fenton and Longton (chiefly flatpressers' boys). 69	25 or 36·2 „	44 or 63·7 „

The state of education amongst the same class of children in the other towns of the district is probably on a par with that in Hanley, Shelton, and Etruria.

The above statistics do not afford any evidence of the state of education among the older and better class of children and young persons. I examined the younger girls in several of the paintresses' rooms

in Stoke, Hanley, Longton, and Burslem, and found that they were generally able to read well the subjects I gave them. The Pottery Manufacture.

Not having made any general investigation of the number of children attending the day schools in the district, I am unable to give any complete returns, but from the statement which I have received from the Rev. H. Sandford, assistant inspector of schools, it appears that although the number of children attending public day schools has considerably increased in proportion to the population since the time of Mr. Scriven's inquiry, the children leave school at a very early age :—*Vide* p. 24. Mr. F. D. Longe

Number of scholars in public day schools (girls, boys, and infants) in the whole district, according to Mr. Scriven's return in 1841 :—

Population of whole district	70,000
Number of day scholars in whole district	1,712 or 2·4 per cent.

Number of scholars in public day schools (girls, boys, and infants) in certain parts of the district, according to Mr. Sandford's return in October 1862 :—P. 24.

Population of those parts of the district	80,237
Number of day scholars in the district	5,450 or 6·7 per cent.

N.B.—These parts include Stoke, which is the best provided, and Longton, which is the worst provided with day schools of the different towns in the district.

While in most of the departments of the pottery manufacture much skill and ingenuity are required, and efficiency can only be obtained by long practice and experience, very few departments offer any direct inducement to education. While a few of the higher class of workmen will deny themselves the benefit of a boy's earnings for several years, in order to qualify him for a good situation in the warehouses, or in some other trade, the bulk of the children of the district leave school for the manufactories at the age of 9 or 10. Any further instruction must be acquired at the night schools or Sunday schools, the latter of which are very numerous and well attended.

The "out potteries," as the Staffordshire potters call them, are situated in various parts of England and Scotland, but in no locality are they very large or numerous. Most of them have been established for many years, and it does not appear that the trade has increased in any district so much as in Staffordshire. The following list will afford a general view of the situation of nearly all these "out" potteries and of the number of persons employed in them :— Potteries out of Staffordshire.

	Manufactories.	Approximate Number of Persons employed.
Scotland :—		
In and near Glasgow	6	1,400
Greenock	1	200
On the Forth	2	400
Northumberland :—		
Newcastle	4	650
North Shields	1	100
Durham :—		
In and near Sunderland	4	500
Stockton	2	220
Yorkshire :—		
Middlesborough	1	200
In and near Leeds	10	300
Near Sheffield	5	580
Worcestershire :—		
Worcester	2	450
Shropshire :—		
Coalport	1	300

There are a few other isolated manufactories in places which I have not thought it necessary to visit. I should estimate the total numbers of operatives employed in the "out" potteries belonging to this branch of the trade at about 8,000.

These manufactories also differ very much from each other as to their magnitude, and as to the character of the goods produced in them. Some of them have been built at a recent period, and contain large and commodious workshops, into which steam machinery and other improvements have been introduced. The smallest manufactories I have visited are at Castleford, near Leeds, in some of which only 25 or 30 hands are employed.

The general system of employment, the hours of labour, and the times for meals, are much the same as in Staffordshire, except that in the Scotch manufactories the dinner hour is at two. Throughout the trade the workmen hire and pay their own assistants. In none of the manufactories which I visited, did I find so large a number of children under 10 years of age as in Staffordshire, although I found almost everywhere boys under that age employed by the flatpressers. The Glasgow potteries being situated in the midst of a dense and poor population, while there are few other trades in their neighbourhood to compete for the labour of boys under 13, the potters have no difficulty in getting as many boys as they require of 11 or 12 years of age. In the potteries at Newcastle, and in some others which I visited, I found a great number of girls, generally of 13 years of age and upwards, employed by the flatpressers, sometimes in conjunction with boys, in the various operations of wedging clay, running moulds, and turning the jigger. The employment of girls for these purposes prevails also to

The Pottery Manufacture.

:.F.D.Longe.

a great extent in the potteries on the Wear, near Sunderland, and at Middlesborough on the Tees. In these localities the shipyards, ironworks, and other trades, are so much preferred to the pottery trade, that the potters find a difficulty in getting, or at least in keeping any number of boys either as assistants or as apprentices; while on the other hand, owing to the scarcity of female employment, girls can easily be obtained from the poorer families in their neighbourhood. At other places in which one or two isolated potteries of a high class are situated, not only is there a scarcity of other employment for boys, but the potteries are preferred to the other trades of the district. In the porcelain manufactory at Coalport in Shropshire, I found strong and well-educated boys of 13 and 14, doing the same work, and receiving no higher wages than would be earned by boys of 9 or 10 in Staffordshire, or by girls in other places. In all these manufactories I found a few very young children, both boys and girls, working with their fathers. In many of these cases the children were employed to save the expense of more able assistants, at a time when the workmen had a scanty supply of work.

I observed a considerable difference as to the state of education among the children in different localities. In the country districts the children had generally been to school for some years previously to their commencing work. In the manufactories at Stockton, I found several children who although they had begun to work at a very early age, not only were able to read and write, but showed a considerable interest in their education. In Glasgow, Newcastle, and in the potteries on the Wear, I found a more general absence of, and disregard for education, than I observed among the children in Staffordshire. However, the number of children employed in these several potteries is so small, and their connexion with the trade so transitory, that the state of their education must be attributed to circumstances quite independent of the trade itself.

The evidence which I obtained in different localities as to the effect of the employment upon the health of the operatives accorded in the main with that which I obtained in Staffordshire. Although my informants differed considerably in their experiences of its injurious effects, it was generally considered that the potters were a short-lived class. The inhalation of mineral and metallic dust, vicissitude of heat and cold, hard work in hot and badly-ventilated workshops, and drinking habits, were the different causes to which the frequent decay of the potter's constitution at an early age was attributed. Owing to the aggregation of manufactories in the Staffordshire district, the continuous employment which a prosperous trade has afforded the operatives during many years, and the cold and damp nature of the climate of this locality, the injurious effects of the employment appear there to a much greater extent than in any of the "out" potteries.

In some of the manufactories in Glasgow and Newcastle, steam power is used to a much greater extent than in any of the manufactories in Staffordshire. Its application for the purpose of turning the various potters wheels, dispenses with the labour of the children and women who are usually employed for that purpose, and facilitates the operation of the workman. Thus in the case of the flatpressers, a child is no longer required to turn the jigger; as, however, the workman is able to produce a greater quantity of ware, he generally employs an additional boy to wedge clay and carry moulds. This additional boy would probably not be required if the pugmill was used for preparing the clay. Undoubtedly, a considerable reduction in the number of children required might be effected by a more general use of steam machinery for these purposes.

In some manufactories machines called "heads," or "jollies," are used for the manufacture of the more common shapes of round ware. The ware is formed in moulds which are turned by steam power. A lump of clay is placed in the mould, and the cup or bowl is formed by the pressure of a piece of iron upon the clay while the mould is revolving. By means of these simple machines, children and women are employed as substitutes for the skilled thrower. An extension of the use of mechanical contrivances for forming ware, would probably cause a considerable addition to the numbers of children at present employed. It seems, however, that unless the demand for ordinary kinds of earthenware goods greatly increases, or the trade becomes more concentrated in large manufactories, the use of steam machinery will not be much extended.

The manufactories which I have included in the second class are very numerous, but generally much smaller than those in which fine ware is made. The largest stoneware manufactories are in Lambeth; other manufactories of a similar character are situated in various parts of Derbyshire; at Brierly Hill, in South Staffordshire; at Glasgow, Portobello, and Musselborough, in Scotland; on the Tyne, near Newcastle; at Poole, in Dorsetshire; at Bristol; and, I believe, in a few other places. In many of these manufactories, the manufacture of coarse or salt-glaze earthenware, drain-pipe, and terra-cotta, is carried on in conjunction with that of the stoneware. Although many of the processes, and much of the employment, in these manufactories is the same as in the fine ware manufactories, the operatives are not subjected to the same extent to influences injurious to health; while the number of young children employed in these manufactories is very small, as the articles produced are generally so large and heavy that little occasion is offered for their employment. In the potteries which I visited near Chesterfield, in Derbyshire, I found that much irregularity prevailed as to the hours of work. It was stated to be a common occurrence for workmen to begin at 3 a.m. or 4 a.m. on Friday and Saturday, in order to recover time lost on previous days. From the information I received from both masters and workmen, there appeared to be no necessity for this practice, while it was the opinion of both parties that more work would be done if the men were compelled to work only between 6 a.m. and 6 p.m. In the potteries which I visited in Lambeth, steam power was used, which effectually secures regularity in the habits of the workmen.

The employers whose manufactories I visited readily afforded me all the information I required, and every opportunity for prosecuting my inquiry in their works. They generally expressed great disapprobation of the practice of employing children at a very early age, and were anxious that they should be educated before they began work.

The Pottery Manufacture.

Mr. F. D. Longe

Proposals for legislation.

As the question of legislation has been discussed by several employers in Staffordshire, and some have expressed themselves desirous of having the trade subjected to certain legislative restrictions, more especially with reference to the employment of very young children, I will, in conclusion, make a few observations on this subject, which have been suggested to me by employers, workmen, and others, with reference to the applicability to this trade of some or other of the enactments contained in existing statutes regulating the employment of children and young persons.

It has been proposed that the regulation of the Factories Acts, which prohibit the employment of children under 13 years of age for more than 6½ hours in each day, or for more than three alternate days in each week, should be applied to this trade.

In favour of the half-time system it is said that it is the only system which can effectually remedy the evils which exist in this trade, inasmuch as while it would insure the education of the children through several years, it would at the same time prevent the injury to which they are liable by being employed for too many hours.

The following appear to be the principal grounds on which this system is objected to:—

(1.) That the double number of children which would be required for carrying out the half-time system could not be obtained in the Staffordshire district, and in some of the country districts.

I have given 4,500 as an estimate of the number of children at present employed in Staffordshire. The half-time system would accordingly require more than 8,000 children to enable the work of the manufactories to be carried on as at present, and of these it would be desirable that nearly two-thirds should be boys.

(2.) With regard to the boys, the flatpressers' assistants form by far the larger portion of the boys employed, and it is generally stated that there had been for some time, previous to the present depression of trade, a great difficulty in getting boys for this work for reasons which I have already mentioned. Much of the work in which the boys are employed, particularly wedging clay and running moulds, requires strength, and the employment of little boys, although too common, is objected to by all parties. On the other hand, it is said but few boys of 14 years of age can be got for this work, as those who do not become apprentices at this age, leave the pottery manufactories for more lucrative employment in the coal pits, ironworks, brickworks, &c. The employment of girls at this work is universally objected to, and prohibited by many employers. In order, therefore, to carry out the half-time system in the case of the flatpressers' assistants, it seems that about 3,500 boys between the ages of 9 and 13 would be required. It is said that many boys of this age would be able to get 5*s.* or 6*s.* per week in the coal pits, &c., instead of the 1*s.* 6*d.* or 2*s.* which would be all they could get from the potter according to the present rate of their wages.

Again, the variety and particular character of their employments, and the mode in which they are hired, are urged as objections to the half-time system so far as the boys are concerned. Most of the employments in which the boys are engaged require some experience, and the difficulty of getting a double number of efficient boys for each branch would render the half-time system less practicable than in trades where the employment of children is simple and uniform. In the case of the flatpressers' boys, moreover, the workmen are absolutely dependent on the assistance of their boys for the performance of their own work. Again, all the boys, except the apprentices, are hired and paid by the men, and it would be very inconvenient to alter this system in many of the branches, so long as the men were paid on the piecework system. Again, there is a great want of regularity in the number of boys which a workman requires. For instance, a cupmaker would in one week require six boys under the relay system; the next week, owing to his employer wanting a larger quantity of ware made, he would require eight boys. Lastly, assuming it possible to get the requisite number of boys, the shops in which they are employed are so numerous and detached, that it would be very difficult for the employer or his manager to enforce the observance of the law.

(3.) With respect to the girls, there would probably be no difficulty in getting the requisite numbers; nor with respect to one class, viz., the paper cutters, is their employment of such a nature that it could not be carried on by relays; but it is said that this system would be quite impracticable with the paintresses. If relays of children were employed in painting ware, one set of ware, or even one piece of ware, instead of bearing one pattern, would have as many patterns as there were children employed upon it.

The regulations which certain employers in the Staffordshire district have proposed, as both practicable and desirable, are—

"That no child under 10 years of age should be employed at all in the pottery manufactories; "and that children under 13 years of age should not be employed for more than 10½ hours per day." —See Letter of Mr. Frederic Bishop, p. 21.

The only objection to this regulation which has been suggested to me, independent of the question of its sufficiency, is, that it would exclude from employment children of widows or distressed parents, who although under 10 years of age, might happen to be equally strong and fit for work as children above that age. On the other hand, it is said, that such cases would be too few and exceptional to affect the policy of such a restriction. Nor does it appear that either absolute want, or a greed for money, is the only motive which influence parents in sending their children to work at a very early age, but that they often do so from a desire to secure a position for their children in the trade at the earliest opportunity.

As to the prohibition of the employment of young persons and children between the hours of 6 p.m. and 6 a.m., with the exception of the attendance which is required by the ovens, there is no process in the pottery manufacture requiring night work. It is only resorted to for the purpose of completing orders in a short time. Many employers are much opposed to it.

From the account which I have given of the "out" potteries, you will have observed that they do not offer many important points for consideration in respect to the question of legislation. I believe that I may safely say that any regulations which were practicable in the Staffordshire district, could

The Pottery Manufacture.

Mr.F.D.Longe.

easily be carried out in all the other manufactories. The opinion of some of the employers in the outlying districts, with whom I conversed on the subject of the half-time system, was, that if this law was applied to the trade, no children under 13 would be employed at all in their manufactories, but that girls above that age would be employed in the place of boys.

I have, &c.

FRANCIS D. LONGE,
Assistant Commissioner.

EVIDENCE OF MANUFACTURERS, MANAGERS OF WORKS, CHILDREN, &c.

Stoke-on-Trent.

Mr.F.D.Longe.

MESSRS. HERBERT MINTON AND CO.'S EARTHENWARE MANUFACTORY, ELDON PLACE, STOKE-ON-TRENT.

Henry Bentley, manager.—I consider mould running to be the most unhealthy work in the trade for children. Of course the dipping house work is unhealthy, but few children are employed in it. A child ought not to be under 11 to work at mould running, except in the case where lads are working for apprentices, where the work is not so laborious as under a journeyman. I do not think girls ought ever to be employed at mould running. It is not work for girls. We have boys of 16 running moulds; only one or two; they only get 5*s.* a week. As a rule, lads ought not to be employed at mould running beyond 14, that being the time when they should become apprentices. No lad would get more than 5*s.* a week at mould running, however old he was, unless he assisted the platemaker in making his plates. This is not a proper system of work. I do not know of any case where children have been injured by mould running. I have known cases where they have been injured in the dipping house. I never heard of a case of a girl's health being injured in the painting room. In the case of paintresses it is only a matter of ventilation. If the room in which they work is well ventilated, I do not consider that the work is unhealthy.

I consider scouring unhealthy work, but no children are employed in it. The scourers are generally girls over 18. They keep at it as long as they can. We have women over 50 employed in scouring.

I consider that the boys employed by the men are well used by their masters, as far, at all events, as our manufactory is concerned. The lads are always, I may say, fairly paid by the men. I never heard of more than one case where the man did not pay his boy, and then the boy took the man's tools and paid himself.

PAINTRESSES' ROOM.

This was a long room, well built and well ventilated. About 40 girls were employed in it painting plates, saucers, cups, &c. They were under the superintendence of the next witness.

Ann Pennington.—I superintend the girls in this room. The youngest was 13 last October. She can read and write. The eldest is 19. No children are now absent on account of sickness. Sometimes three out of the 40 are absent because they are not well. Never more than that.

GROUNDLAYER'S ROOM.

William Clark.—I have been 30 years at this work. I enjoy very good health. I am not aware of any one who is suffering from its effects at this time.

Henry Clegg.—I am porter at the earthenware works. There are about 14 platemakers employed here. Each man employs two lads on the average. No boys are taken here as apprentices under 14. A lad of 13 would get 2*s.* 6*d.* or 3*s.* When he became apprentice he would get only 2*s.* for the first year. He would get 3*s.* or 3*s.* 6*d.* in his second year. He would then begin to get wages like a journeyman, with a deduction for his master.

MESSRS. HERBERT MINTON AND CO., CHINA WORKS, LONDON ROAD.

DIPPING HOUSE.

George Corbishly, dipper.—I am 58. I have been at the tub 30 years. I have three children grown up. They work with me in this room as dippers. One of the boys in this room is a grandchild. There are only two children work here.

MESSRS. HERBERT MINTON AND CO.'S ENCAUSTIC TILE WORKS, CHURCH STREET

Charles Simpson.—I am clerk to Messrs. Minton at these works. We have about 15 to 19 pressers in these works. Each man employs one boy. In two or three cases two boys would be employed. Their ages would average 13.

Jonathan Lee, press tile maker.—I have worked at this 21 years. I have never suffered at all from the effects of the dust. I began at the very commencement of the manufactory. I have never known any case where either a woman or child employed here was ill, and the doctor or anyone else attributed it to the dust. Some of the dust is injurious, but then the men are changed from this to another kind.

W. T. COPELAND'S EARTHENWARE AND CHINA MANUFACTORY, HIGH STREET, STOKE-ON-TRENT.

John Bilton, manager of the potting department.—I have held my present office seven years. Before that I was a hollow-ware presser on these works for 16 years, I never was a mould runner.

I consider the mould running to be the worst employment in which children are engaged in our trade. I think it affects them in this way, it tends to weaken their constitutions. The constant change from the heat of the stoves to the external air and the exposure to damp is injurious to their constitutions. I am not aware of any cases where boys have been directly injured by it, except, perhaps, in the case where a boy drank too much water when hot, and died from it.

There is a difficulty now in getting boys for this work. I attribute this partly to a knowledge on the part of the parents that the work is unhealthy, and partly to the greater demand for boys of this age than formerly. A boy ought not to begin mould running before he is 11 or 12. Girls certainly ought not to do this work at all. It is too laborious, and it is not girl's work. It would be very wrong to put them to this work, as they would be so much out of the way of other women.

As a rule boys are not at all ill-used by their masters (*i.e.* workmen); we should stop anything of the kind. Perhaps the apprentices sometimes may use them

wrongly through ignorance of what they can do. We always stop this where we see it. As a rule, we do not allow the men to beat the boys. I do not think a case of a man beating his boy occurs once in the year. We hardly ever hear of cases of apprentices ill-using their boys. The greatest good the legislature could do, if it were possible, would be to bring about a change in the present system of stoves.

We scarcely ever have a boy over 14 employed in mould running. All the boys who were not deficient in some way, or were otherwise prevented, would become apprentices at that age. This very morning one of our platemakers wanted a boy as a mould runner, and tried ineffectually to find one in Stoke. He then tried in Trent Vale without success. At last he got one at Newcastle. It is therefore about two or three miles off where he got the boy.

I think the heat of the stoves is the great evil of the trade. I believe it is the cause of the drinking habits, as well as of the debilitated constitutions, which prevail among potters.

As a rule, I should say there was no immorality among the girls employed in the pottery trade. I know of no case in our own manufactory.

With regard to night work, we generally try to do without it, even in the case of orders requiring particular haste. It is not once in three months that any of our men would work all night (*i.e.* except the oven men). It is now six months since any of the potters in this manufactory worked all night.

William Lambert, cashier.—In the last three years we have not worked all night half a dozen times. On these occasions platemakers and printers have been employed. It has never exceeded a week at a time. On those occasions children have worked, but in every case a fresh set has been employed.

Dipping House.

Charles Barker, dipper.—I am 53 years old. I began dipping as a boy. I enjoy very good health. Sometimes I am unwell. I know several cases of men having been injured by the dipping tub. I always wash every night when I go home. I have done so for two or three years. I take 10 or 11 drops of sulphuric acid in the morning.

James Barnacle, assistant to last witness.—I am 12 years old. There are nine other boys here. They would be from 12 to 14. I have worked three years in the dipping house. I have been ill twice. Once I was kept at home two days, the other time three days. My father is a sagger maker. I cannot read. I go to school on Sundays. We get 3*s.* or 4*s.* a week each.

Messrs. W. Adams and Sons, Earthenware Manufactory, Church Street, Stoke-on-Trent.

Joseph Davenport, manager.—We have two boys over 13 working in the slip house. Both are working with their father. It is not usual to have boys working in the slip house. There are eight boys, of ages from 10 to 15, in the dipping house.

It would be a good rule that children should not be allowed to work after 6 p.m. It would make the men regular. It is contrary to the rules of our works that men should work after 6, but they often do it to suit their own convenience. They keep the boys idle one day, and then work them too much the next. There ought to be a compulsory rule that they should give over at 6.

I think 10 is quite early enough for either boys or girls to begin to work. It is injurious to children to work them as mould runners under 10; so also in the case of dipping house boys. If the age was 11 instead of 10, it would be better; it would not affect the trade as far as masters are concerned. I would not advise any law to be passed which would fix an age under 11; it would do more harm than good.

I think 14 is the lowest age at which boys should be taken as apprentices; and 12 or 13 for girls as paintresses. I do not know of any case of a child having been injured in the dipping house on our works. It is not so injurious now as formerly. There is no arsenic used now by us. There is not less lead used now than formerly. I attribute the absence of the bad effects I used to see from the fact that arsenic is not used as it used to be. I think the half-time system would be injurious to the manufacturers, because we could not get the double number of children.

Lads are paid by the day or week. A child of 10 would never get more than 2*s.* per week. That would be the average wages of mould runners of that age. Sometimes we have mould runners of 14 or 15. They get higher wages; they help to make plates for the man they work for. The parents of such lads would either be too poor to apprentice them, or drunken men, who spend their money, and so can't afford to apprentice them. A lad of 11 would earn from 2*s.* 3*d.* to 2*s.* 6*d.* per week; a lad of 12 would earn 3*s.*; a lad of 13, 3*s.* 6*d.* to 4*s.* An apprentice girl of 12 would earn 1*s.* 6*d.* to 2*s.*; an apprentice boy or girl of 13 would get 2*s.*; of 14 would earn 2*s.* 6*d.* to 3*s.*; of 15, 3*s.* to 3*s.* 6*d.*, and after that age up to the termination of their apprenticeship, they would earn half or one-third of the wages of a journeyman or woman. The employment of men after 6 p.m. by the master depends upon whether his business is flourishing or not. In very few cases would men come before 6 a.m. Men often work after 6 on their own account. Cupmakers, for instance, will be off drinking, and then work their children almost to death. They are generally drunken men who do this. No regular man would do it.

I know of no case of immorality among the young men and women employed in our works during the last year.

Sometimes the mould runners complain to me that the men work them too many hours for the little wages they give them. The mould running is the worst work which children do. Very few parents would send their children to this work if they could help it. Drunken parents do.

I never heard of an instance of a boy being injured by carrying clay or ware.

Sagger House.

Augustus Wright, age 16.—Worked six months at sagger making. I was over 9 when I began to work as a mould runner. (Can read well.) I am reading the history of England. I know about Henry VIII. He was the first King of England that turned Protestant from Catholic. Luther was a Catholic priest, who went along with him. He wanted to get rid of his wife, and turned Protestant because the Pope wouldn't let him. (This boy was a Roman Catholic.)

Dipping House.

William Smith, age 62.—Have been a dipper 40 years. Have been very ill at times. Once laid up 12 months. Two or three times six months. The glaze is not so bad now as formerly. I know cases of men who have died from dipping. Winkle died suddenly. He had been under the doctor, and taken a great deal of calomel and then came to work, and died next day.

Messrs. C. Jones and Co.'s Earthenware Manufactory, Church Street, Stoke.

George Miller, kilnman.—I have four children. The eldest is 10. My wife worked before marriage, but gave up when we married. My eldest boy works. He has worked eight months. I think many children

The Pottery Manufacture. — Stoke-on Trent.

are hurt by being put to work too soon. I think it would be a good rule that children should not work under 13, provided we could keep them at home and pay for their schooling. When we get little wages ourselves, our child's wages are a great help. My boy of 10 brings me 2*s.* 6*d.* per week when he works the whole week.

Mr. F. D. Longe.

Messrs. Malcolm and Mountford's Earthenware Manufactory, Boothen Road, Stoke-on-Trent.

Mr. John Mountford, manufacturer.—I have been a working potter. My family are now working in these works. We pay our wages on Saturday at 2 p.m. in cash; as far as possible we pay in change, in order to prevent the men having to go to public houses to get change. We pay by shops, and give a bill to show the wages of each man in the shop. In their works the dipper is not always employed at dipping. It would be so in all small works. We are trying a glaze which has no lead in it. It consists of a larger proportion of borax and barytes instead of lead. It costs about the same. We have only used it on white ware as yet. I have no doubt this glaze would do very well on coloured ware.

As a rule we never allow our men to work after 6; it means that they do not work in the morning. Sometimes we have orders which require us to work after 6. But then we never work later than 8 or 8½. That is not done once in a couple of a months. I do not think it a good plan to work late hours, even when we want a large order executed in a short time. The men would only come later in the morning.

I know of no case of immorality among the young men and women in our employment which has occurred since I have been here. We forbid drinking on the premises, but the men do get beer in sometimes.

Messrs. Bromley and Turner, Parian Figure Makers, Liverpool Road, Stoke.

These works are small. The rooms are good. The number of workmen employed about 18 or 20 men, and 5 children. The articles manufactured are figures and vases in Parian.

William Bromley.—We have two or three children under 10 or 11; they are employed by the men, and earn about 2*s.* 6*d.* per week. I think it would be better for the trade if the men were not allowed to employ children under 11. If we had to pay more wages we should have more work done. There often are big boys out of employment when the little ones are in work. They are not injured in health in our work, their work is so light.

George Turner, partner of above.—I did more injury to my constitution in three weeks when I worked as a mould runner before I was 10, than I did in any three years afterwards. I think children go to work a great deal too soon, and work for too many hours. But I think it better that children who are able to do anything should be employed rather than go about the streets. I do not think the legislature would be justified in preventing children going to work before they are 10, unless they were provided with schooling. I am an advocate for secular education, and would leave religious teaching for the parents and teachers of religion. I think that the State ought to provide education for all, but I do not say I should approve of a compulsory system. I believe the half-time system is the best, but it could not be carried out in such works as ours. Some of our workmen employ two or more lads each. They could not get the double number to do the work they want done.

Hanley.

Mr. Edward John Ridgway's Earthenware Manufactory, Hanley.

Mr. E. J. Ridgway.—I am desirous of giving my assistance to any practicable measure which would be beneficial to the children I cannot venture to give an opinion as to whether the half-time system could be carried out in the pottery trade. I think it would be possible in my own works in the case of the mould runners. It might slightly raise the scale of wages. But as far as I am concerned, that would not be an insuperable objection. The difficulty arises from the fact that in the pottery trade the boys are employed by the men and not by the master. There has been a great difficulty in getting boys lately. The high wages given in the irontrade takes away the boys of 15 or 16.

I have always made it a rule that our mould runners should be 13.

John Read, foreman to Mr. E. J. Ridgway.—I think children ought to be 11 or 12 to work at mould running. Girls decidedly should not be employed at this work at all.

There is no other hard work in which children are employed besides mould running. The work of the other children is chiefly running errands.

I do not think "handling" is injurious. All labour in confinement is more unhealthy than work in the open air. Since I have been a manager, I never knew of a case where a child has been so injured by his work as to be obliged to leave and not be able to return.

I have interfered at times when I have seen lads putting too heavy loads on little boys. I have never seen men working their boys too hard. In the case of apprentices, I have seen boys wrongly used when I have stopped. It is not done now.

John Murray, ovenman at Mr. E. J. Ridgway's manufactory.—I have a child employed at this dipping house; he is 13; I do not consider that he is being injured by his work; he has never been ill since he has been at this work; he has worked at it about 18 months at the outside. I do not at present remember any cases where children have been injured at working in the pots. If the dipping house agreed with my child, I should put him to it. If it did not, I should put him to mould running. I should think the heat of mould running was bad for the lads. I was a mould runner 6 or 7 years myself. It never injured my growth.

Children can go to night school after their work.

William Williams, mould runner, age 10 years 6 months.—I have worked three years altogether. I never went to school. My father is a collier. I get 2*s.* 3*d.* a week; I once got 2*s.* 6*d.* a week; that was two years ago. I work now for William Bennett. I live in Broad Street. I come at 6 in the morning; I never went to work earlier than that. I generally give over at 6; I have worked till 6½; I never worked later, except when I was making grapes. After 6 I go home, I play till 8, I then go to bed. I get up at about a quarter before 6.

Thomas Kelsale, another boy employed at Mr. Ridgway's.—When I worked at Mr. Baker's, at Fenton, three years ago, I worked after 6; I worked there 18 months; sometimes I worked three days in the week up to 8 or 8½, perhaps up to 9. It was my master's (*i.e.* the workman's) fault we worked late. He did not work enough in the day-time. I have got as much as 6*s.* 6*d.* a week; I have got as little as 2*s.* 6*d*; I never got less than that.

Sampson Hulme, age 12 years 9 months, assistant in the packing house.—I worked here in the packing house till 9 one day last week; that is the only time in my life I ever worked so late.

Messrs. Livesay, Powell, and Co.'s Earthenware Manufactory, Hanley.

The Pottery Manufacture. Hanley. Mr. F. D. Longe.

Mr. Powell, manufacturer.—We object to legislative restriction on our employing children, because although, as a general rule, we consider that no child should work under 10 years of age, yet we think there are often exceptional cases, in the cases of widows or sick parents, when it would be better that children under 10 should work, rather than they should be kept by parish relief. The wages of lads have risen 50 per cent. during the last 8 or 10 years, and the wages of the platemakers have advanced one-third during the last 20 years. Any legislative enactment which would prevent us employing children would tend to increase the cost of production, and so prejudice us in competing with foreign manufacturers.

The north competes successfully with us through the machinery which they use.

Machinery may be used for making cups, saucers, and plates; but it could not be introduced here without disjointing the whole system of labour and causing a strike.

Josiah Wedgwood and Sons' Earthenware Manufactory, Etruria.

Etruria.

Mr. Josiah Wedgwood.—We have attempted for two years to enforce a rule that no children should be employed in our works under 11. We could not carry it out, because we found it impossible to get at the ages of the children correctly, so that we could not enforce the rule fairly. I think if the half-time system required children to be worked as young as 8, it would so far do harm. I think it might be possible to get a double number of boys between the ages of 9 and 13, if we paid higher wages to the workmen. I think that the half-time system would tend to the employment of girls to make up the number. I would not say that the employment of mould running would be bad for girls, if they were of a proper age. I have never tried the half-time system, nor have I considered how far it would be practicable. If the double number of children were all boys, there would be double the number of boys to pick apprentices from, but it would not be necessary that all should go to this trade. Half of the boys might leave and go to other trades. I think regulations like those of the Mining Act would be very feasible. I think such a law would be a good law. I mean, it would be for the good of the children. It might cost us a little more, but not more than such a measure would be worth. If it could be left to the option of masters to introduce either the one or the other system as they liked, that would be the best plan. I should not care if there was to be a law that children under 14 or 15 should not work after 6 p.m. I have a night school in the winter. The highest attendance was 46 in December last. I should have no objection to a law on the principle of the Mining Act.

[I tried the heat of two of the "stoves" in the platemakers' shops in this manufactory. In one "stove" the thermometer rose to 130, and in the other to 148. In the latter stove, about the same distance from the fire as the thermometer was placed, I found a boy, a mould runner, eating his dinner. He informed me that he liked to eat his dinner there.]

Mr. Geo. L. Ashworth and Brothers' Earthenware Manufactory, Hanley.

Hanley.

John Lawton, manager of Messrs. Ashworth's manufactory.—I have been 20 years manager and foreman here. I was a hollow-ware presser 27 years before that. I was a mould runner for about one year. I was not 9 when I began to work. I learnt reading, writing, and arithmetic at the Sabbath school and at night school. I went to Sabbath school when I was 5 years of age, and I began to attend night school when I was about 14 or 15.

Boys are principally employed in running moulds and turning the jigger. The average age for boys beginning to turn jigger and run moulds would be 10 or 11. Some would begin a year or so earlier.

I think a child of 9 or 10 is old enough for this work; nor have I ever found that children have been injured by it.

The children all work for the men, and are paid by the men.

The wages of a child of 9 or 10 would be 2*s.* or 2*s.* 6*d.*

Jigger turning is turning the wheel which turns the whirler on which the potter makes plates, saucers, and cups.

Mould running is carrying the plates, saucers, and cups, and sometimes dishes, on the moulds, into the drying house or stove, and there placing it on the shelves to dry. They also have to enter the stoves to turn the ware.

I never heard of children or their parents complaining either of their being worked too hard or paid too little. Perhaps, but very rarely, I have heard of children who happen to have a bad master being badly treated; but in such a case of course we should interfere.

There is a great improvement in this respect to what it was some years ago. The lads are now themselves so independent, that some of the men dare not ill-use them. The lads would go off altogether.

Lads do not work now as they did. The men generally give over at an earlier hour, that is, at 6 o'clock; beyond this hour men seldom work now.

The lads always have their half hours for breakfast and their hour for dinner, which is spent in play. I do not know a single case where a man has prevented his children having their hours for their food and play. If they did work a little beyond the regular time fo meals, their lads would still have the same time.

The mould runner also assists in wedging the clay for the man. It is throwing or beating the clay to drive out the air. It requires strength in proportion to the quantity of clay the boy lifts. A boy may please himself as to the quantity of clay he lifts at a time. I consider it a healthful exercise. The children come in the morning to light the fires. They seldom come before 6. If children were overworked at mould running, it would weaken them, but we seldom find boys are injured by the work, although the stoves are hot.

These lads generally go to the trade at which they have been assisting. When lads get about 12 or 14, they begin to apply for places as apprentices. We don't take any over 14, because they would not be bound beyond 21. We generally take them between 12 and 14, according to their size and aptness. We very often take them from the mould runners employed at our own works. All our apprentices are bound by a stamped agreement.

The stamp is only 2*s.* 6*d.* now. The master pays for the stamp. As a rule, we always keep our apprentices to the expiration of their time. This is the general rule when apprentices are bound.

Boys are also employed by the dippers. Their age would generally be from 12 to 14. Their work is carrying baskets full of ware, handing the ware to the dipper, and then carrying it away. Little boys are not so much employed in this work, because care is required. If the ware was broken the master would suffer. In the case of mould running the man only would be the loser; and, besides, the ware in the dipping house has been already fired, and, therefore, of more value than the clay on the mould which the mould runner carries. The wages of the boys in the dipping house would

The Pottery Manufacture.

Hanley.

Mr. F. D. Longe.

generally be from 3*s.* to 5*s.* I have not often heard of dippers' boys being injured. They generally leave this work for other work when they are about 14 or 15. There is no apprenticeship to this branch of the trade.

The first work an ovenman's boy does is dressing and working saggers.

All the ordinary painting work is done by girls and women. Girls begin to learn to paint about 11 or 12. They are apprenticed about that age. They are not bound. I never heard of girls suffering from this work. It is very nice work for women.

The "cutters" begin cutting at an earlier age. There is one cutter to each printer. They become transferrers as they get older. Their work as cutters initiates them into the other work. They work under a woman.

Girls are sometimes employed as mould runners, but it is too rough work for girls. Girls, or rather young women, are also employed to turn the lathes for the turner, *i.e.* to work the treddle. They get about 9*s.* or 10*s.* a week. I think mould runners ought to be boys of the strength of a lad between 10 and 12. Boys of 9 would do for apprentices, the moulds they use being smaller. I do not think children under that age ought to work at all, nor would they be strong enough. The work is always different in the morning to what it is in the afternoon. The morning work is harder; it is wedging clay and running moulds. The afternoon work is "fettling off," or finishing the plates.

Cupmakers' Shop.

The "stove" in this shop was not heated during the daytime for drying the moulds.

George Horwell, cupmaker.—I can make 25 dozen (36 to the dozen) cups on this system in the day. I have about double the number of moulds generally supplied. The stove is the same size as others. I have 15 dozen (36 to the dozen) moulds.

Jonathan Unwin, foreman.—The moulds last longer because they are not filled when they are wet. There is not a quarter of the slack used in the stove. The stove is heated at five or six o'clock, when the men leave off work. It requires the same number of boys, no more.

Platemakers' Shop.

The stove in this shop also was not heated during the daytime for drying the moulds.

William Liffles, journeyman platemaker.—I employ two boys. I have 35 dozen moulds (12 to the dozen). I like this system better than the hot-stove system. The stove is not heated in the daytime. It is heated when I leave off in the afternoon. In half an hour's time the plates are ready to "back off."

Messrs. Cockson and Harding's Earthenware Manufactory, New Hall Street.

John Sheldon, dipper's assistant.—I am 12 years and 7 months old. My father is a potter; a hollow-ware presser. I get 5*s.* a week. I am a brusher in the dipping house. I begin to work at 7 in the morning. I once went to work at 5 o'clock in the morning. It was last Hanley wakes. I went that early because we wanted to get our work done soon, so as to have the day for a holiday. When I was at Mr. Charles Meyer's, I worked regularly at 6 o'clock in the morning. I was at the same work. I got 6*s.* a week then. Sometimes we gave over at 4, sometimes at 5, sometimes at 6; perhaps once or twice in the week we worked after 6; never after 6½. I never worked after 6½ in my life. I always have half an hour for breakfast and an hour for dinner, between 1 and 2. I never worked through the day without an hour for dinner, nor without half an hour for breakfast.

I have been ill twice since I worked in the dipping house. I took castor oil. I was ill three days last week. I was ill for a week the time before. I am right enough now. When I was ill I had the bowel complaint. We thought it had something to do with dipping. I know the lead is poisonous. I never get my dinner in the dipping house. I always go home to dinner. I always wash my hands before I get my dinner. I have worked about two years and a half in the dipping house. Before that I worked in the biscuit warehouse. I carried ware and emptied baskets. (He could read well.) I learnt to read at the National school before I went to work. I have worked three years altogether. I began making figures at Worthington and Greens.

T. C. Brown-Westhead, Moore, and Co.'s China and Earthenware Manufactory, Cauldon Place, Hanley.

Mr. William Moore, manufacturer.—I am strongly opposed to any legislative interference. I think that in our case we are quite competent to manage our own affairs. I cannot speak for others. I think that if any limit were put to the hours of children's labour, the hours of work should be from 6½ a.m. to 6½ p.m. I do not think that a law preventing children from being employed after 6 p.m. would be prejudicial to our own business.

[I tried the thermometer in a "stove" in one of the saucermaker's shops in the manufactory, and found the heat to be 120 degrees.]

Platemakers' Shop.

(This shop was particularly cool).

Thomas Hoddon, platemaker.—If we have sufficient heat in the stove to dry our moulds, we do not want any heat in the room we work in. I should like to have the shop I work in no hotter than a carpenter's shop. If the stove was very hot, I could do my day's work with 12 or 14 dozen. If no heat was used in the day, I should want 40 dozen. I am now working with 27 dozen moulds of 10 inches diameter.

Mr. J. W. Paukhurst's Earthenware Manufactory, Hanley.

James William Paukhurst, manufacturer.—I consider that there ought to be a law to prevent children working under 11 years of age. I think it would be a good thing to prevent children working after 6 p.m.

A muffin-maker wants 15 dozen moulds. In good times a lad of 12 would get 6*s.* per week.

I have sent John Adams home once because he was too young. He is now only 8 years and 6 months old. His father is a sawyer.

Old Hall Company, Earth Manufactory, Old Hall Street, Hanley.

Thomas Jones.—I am manager of these works. Our trade is with the home market. We have 42 jiggers fitted, but we are only working 25. There are about 20 stoves to the 25 jiggers. I think there would be a difficulty in getting boys over 11 when the trade is good. I think we could manage if the age was limited to 10. I do not think that children ought to be employed under 10. The men sometimes get small lads in

The Pottery Manufacture.

Hanley.

Mr. F. D. Longe.

order to save money by paying them less wages than they would have to pay bigger lads. They sometimes will get girls for the same reason. We have peremptorily stopped girls working. I believe a rule limiting the hours of work to between 6 a.m. and 6 p.m. would be a good rule, and not prejudicial to the trade. I think running moulds is decidedly the most injurious part of the children's work. The children do not get any more for working later than 6, and the habit has a bad effect on the workmen themselves. If any system could be substituted for the present stove system, which requires children to enter them, it would be a great blessing to all the operatives employed in the trade. We have no children under 13 in the dipping house. We have a night school for the lads employed in our works.

Cupmakers' Shop.

William Wardle.—I am a cupmaker. I do not think lads under 10 are much use. I think we could always get lads of that age; I have have been a cupmaker about 26 years. I have very seldom during that time employed lads under 10. When I am in full work I employ four lads.

Mr. Joseph Clementson's Earthenware Manufactory, Phœnix Works, Hanley.

Charles Whittingham, foreman.—Dishmakers can do with one boy of 13. Little boys would be no use. Platemakers want two boys; one to turn the jigger. He should be 11 or 12. He would get 3*s.* 6*d.* The other should be 12 or 13. He would wedge clay and run moulds. He would get from 4*s.* to 6*s.* A saucermaker wants three boys. One of 12 to wedge the clay and run moulds. He would get 4*s.* The two little ones would turn the jigger and run moulds, and get about 2*s.* or 2*s.* 6*d.* Inside cupmakers require three lads, or a girl besides to sponge the cups. She would get 5*s.* or 6*s.* The lads ought to be 11 years old, the jigger has to be turned so quick. An outside cupmaker only wants two lads; one to turn the jigger and run moulds; the other, a bigger boy, to wedge the clay and run moulds.

John Dimmock and Co.'s Earthenware Manufactory, Hanley.

Mr. J. Dimmock.—I think that children should not be allowed to work under 10 years of age, and not even then without a certificate that they could read and write. I would not have them work without such certificate until they were 12 years old, and then I think they should be required to attend a night school for two years. I think a law which rendered it necessary that a child should be able to read before he could work would have a great effect in compelling parents to educate their children. Such a limitation to the employment of the very young children would tend to raise somewhat the wages of those who could work.

I think that the half-time system would be quite impracticable here.

I think an absolute rule that no child should be allowed to work after 6 p.m. is desirable.

The children have to be at the works in the morning to light the fires, but they seldom come much before 6. I think that an absolute rule that children should not come before 6 would also be a good rule. I think that even in case of orders which required the quickest possible execution, it would still be better that we should be prevented working after time.

Messrs. Lockett and Cooper's China and Earthenware Manufactory, Hanley.

Mr. Cooper, partner in above firm.—I think if Government were to limit the age at which children should be employed to 11, 12, or 13, if it was an universal rule, it would be all the same to the masters. If a manufacturer has room for a double number of moulds, it is economy to use them; but there must be sufficient area for the stove to be enlarged so as to hold the double number.

Mr. Lockett, partner in same firm.—I am decidedly opposed to any legislative interference. I do not see how it could be done; any law would cause endless trouble. I object to children coming too young; often children are brought very young, and I have refused to admit them, when I think their parents ought and can keep them longer at school.

Thomas Forester, manager to above firm.—I think that the British manufacturers are themselves to blame for the low price of common earthenware goods. I do not think any foriegn competition would prevent the masters getting a higher price if they would only act together. No one can carry on an earthenware manufactory without a considerable capital. The present system is to pay high wages at the expense of the health of all the workman engaged in the manufacture, *i.e.* the potters and their boys. I mean that the men only think about getting high wages, and do not care about the health of either themselves or their boys. We have 16 jiggers and 11 stoves used for earthenware. I think if manufacturers would combine and get a higher price for their earthenware goods, they could afford to introduce improvements as to the stoves and the ventilation of the workshops, which would be of enormous benefit to the operatives.

Mr. William Stubbs' China and Earthenware Manufactory, Eastwood Pottery, Hanley.

William Stubbs.—I think a law preventing children working after 6 would be prejudicial to my trade, because it would prevent me making up lost time. I should decidedly approve of a law that no child should work before he was 10. I should also like a rule that no child should work under 12 unless he could read and write. I have thought of the half-time system, and I do not think there is any reason for it. I have seen mould runners and jigger turners overworked.

Mr. George Mountford's Earthenware Manufactory, Park Works, Fenton.

Fenton.

Mr. George Mountford.—I was a flatpresser for 24 years; then I was a manager; and now I am a manufacturer. We have only one apprentice potter under 20; he is a presser. Our hours are from 6½ to 6 from Lady-day to Michaelmas, and then from 7 to 6. When I was a manager I always tried to close the works regularly at 6, but there were times when I found it impracticable to do so. Those times were very rare. If there was a law which prevented every manufacturer working after 6, it would be practicable, and it would be a good thing for masters and workmen, as well as for the children. Children do sometimes work after the usual hours, to 7, or even up to 9, when their masters have lost time during the day. It is a very difficult thing in our manufactories to enforce regularity of hours or habits among the workpeople. If there was a law passed to compel all manufacturers to close their gates at 6 o'clock, I believe it would be a great blessing to all of us. I was manager for Mr. Paukhurst of Hanley, and I know how hard

The Pottery Manufacture.

Fenton.

Mr. F. D. Longe.

he tried to carry out a rule that the gates should be closed at 6½, but he could not do it.

There have been three new manufactories in Fenton during the last six years, and no others during the last 20 years.

As a rule, platemakers cannot get boys over 13, because they would cost too much. The men could not pay more unless they had higher wages. The master could not afford, according to the present list of prices, to pay more money to the platemaker. That rate could be raised by a combination among manufacturers. I do not think there is much saving as to the cost of production in the use of machinery. I think that if there was it would have been introduced here. I think the North use machinery because they cannot get any number of skilled potters; they cannot keep those who leave us for them. They are generally the worst of the Staffordshire men who are driven out, or they are men who leave in bad times, and come back here as soon as the times are better. I know that no other manufacturers in the world could prevent the Staffordshire potters raising the price of their ware, even in foreign markets, if they were to combine to do so. I think that the price of ware, as paid to the workman for making it, is higher than it used to be, as a rule, but the price which the purchaser pays the manufacturer is lower. In the manufacture of ordinary ware no money can be made now except by practical potters and economy. It is otherwise with the manufacture of more valuable articles and china, in the case of those manufacturers who make for a more wealthy market. The only advantage that the North has over us is in the less cost of materials to them, the conveyance of which is much cheaper than with us; so also is the transit of their goods to the market.

Platemakers' Shops.

Thomas Smith, platemaker (1½ p.m.)—I am polishing up my plates now. I must finish polishing before I stop for dinner, or the ware would be too hard. If there was an absolute rule that the children must leave off for dinner at 1 o'clock, we could provide for it. Any interruption, though, in the morning would put us out, and prevent our getting our work done by the right time; for instance, if the clay was not quite right, which is the case sometimes.

Messrs. John Pratt and Co.'s Earthenware Manufactory, Park Street, Fenton.

Saucermakers' Shop.

William Wood, age 9 years 10 months.—I have worked about two years. I run moulds and put bats. I run moulds when I first began to work. I turn jigger too. I come at 6 o'clock every day in the week. I never come before 6. I give over about 9. I work to 9 six days in the week. I have done so seven or eight weeks.* I get my dinner a little after 1; I have about an hour. I have half an hour for breakfast at 9. I can't read. I go to school sometimes. Father is a collier.

Messrs. E. and C. Challinor's Earthenware Manufactory, Fenton.

Mr. Charles Challinor, partner in above firm.—We never indenture apprentices under 13. Our apprentices are not all indentured; not more than three of the whole number are indentured. Boys become apprenticed at 14, and soon begin to make crockery. Boys of 14 can make plates, saucers, &c. If boys are taken at 14, they are bound for seven years. For the first two years apprentice cup, saucer, and plate makers get half journeyman's wages; for the remaining five years they get two-thirds. Apprentice pressers with us get half wages for the first three years, and then get two-thirds. We have now about six or seven apprentice potters; sometimes we have 10.

Robert Barlow, mould runner.—I was 8 some time ago. I do not know when I am 9. I now run errands for my father, who is a mould maker. I used to work for J. Rutter when he was an apprentice saucermaker. I then used to run moulds, wedge clay, and turn jigger. It was six months ago when I worked for him. I worked many months for him. He had two other boys besides me. He gave me 2*s.* a week. I used to come to work sometimes at 5, sometimes at 6, 6½, and at 9. I used to come two or three days in the week at 5. I worked to 7; sometimes to 8. Sometimes I worked three days, and sometimes two days in the week till 8. I never worked later than 8. I often stopped till 8 when I came at 5 in the morning. I got my breakfast sometimes at 20 minutes past 9; sometimes at 8. I always had half an hour. I had an hour for dinner. Sometimes I went to dinner at half-past 1. When I went to dinner at half-past 1, I came back to work before 2, a good many times. I went to school before I came to work (cannot read much). *N.B.*—See next witness.

John Rutter, apprentice cup and saucer maker.—Robert Barlow (last witness) worked 18 months for me. He turned jigger and run moulds. I generally worked from 6 in the morning to 6½. Robert Barlow never came before 6 to my knowledge I never worked later than 7 as a rule. I very seldom indeed worked later than 7. I never worked my boys through dinner-time without giving them an hour.

Dipping House.

Benjamin Boughey, dipper's assistant, age 10 years 1 month.—I carry ware from the biscuit warehouse to the dipper. I have worked nearly two years. I come at 6; sometimes at 7. I give over work at 5; sometimes 10 minutes or a quarter past. I work for my uncle. I never worked for any one else. (Can read well.) I went to school when I was two years old, and I have been to school ever since till I came to work. I go now sometimes at night.

Saucermakers' Shop.

Herbert Wright, age 18.—I am an apprentice saucermaker. I employ three boys (Frank Dellamer, age 7 years 10 months; William Walker, age 7 years 11 months; and John Mountford, age 10 years 4 months). I never begin before 6. I generally begin at 6; sometimes later. Sometimes I work to 7½; sometimes to 6; generally to 7. When master wants more work done, I work to 8. I can't work without two of my boys at least. Dellamer turns jigger; he never runs moulds. The other two run moulds. Mountford also wedges clay. I bat out about eight times a day. I should be from 20 minutes to half an hour at a time batting out. During that time the boys would be either wedging clay or playing.

Enoch Newell.—I am going 10. I have worked three years. I run moulds, turn jigger, and wedge clay. When I first came I only put bats on. I came at 6 in the morning. I never came before. I go at 6 in evening. Quite sure I never stopped here much after 6. I never stopped till 7. I get my dinner here. I generally have half an hour for dinner; two or three times a week I have an hour for dinner.

James Doyle, mould runner.—I am 13. My father is an Irishman. I do not know how long I have worked. I wedge clay for a thrower. I come at 6. At Baker's I used sometimes to come at 5½. About two or three days a week I used to come at 5½. I sometimes give over at 6½; sometimes at 7 and 8. It was 8 last night. I came at 6 yesterday morning.

* This was true. This saucermaker had been working overtime during that time to supply an order.

I go to dinner at 1. I always go home to dinner. I come back at 2. I get 4*s*. 6*d*. a week. I can't read. I go to school sometimes on Sundays.

Dipping House.

Robert Bowers, dipper's assistant.—I am going 13. I have worked two years with a saucermaker at Burslem. I live at Burslem and come here to work. I can't get work at Burslem. I get here at 6½. I go away at 5 or 5½. Father used to work at Smith's. He is now at Stafford (in gaol for making whiskey). I have a mother and six brothers and sisters. I and my brother only get any wages. I get 4*s*. and he gets 2*s*. and 2*s*. 6*d*.

William Baker and Co.'s Earthenware Manufactory, High Street, Fenton.

Aaron Myatt, foreman to Messrs. Baker.—Of the boys whose names are entered in our list, nearly all are employed at mould running and turning the jigger. About four would be in the dipping house; about five would be employed at handling and pressing cream jugs, &c. Five are assistant to the crate makers. We have no spur or stilt makers, as we get these from the stilt manufactory. Two of the boys are in the warehouse. Generally speaking the smaller boys (where men employ two or three) turn jigger, and the bigger boys wedge clay and run moulds; but if the smaller boy is strong enough to wedge clay and run moulds, he would do so. Boys always begin at turning the jigger; after they have done that a month or so, they begin to know all the work, and then if they are strong enough, they will change about with the others. I could not specify any lads who are never employed in running moulds. In some cases a strong boy is required to turn the jigger, and in these cases it would not pay the men to have little boys. I consider the dipping house the most unhealthy part of the work in which children are employed. I have never known any direct case where a dipper's boy was injured. Mould running is certainly hot work, but the boys get used to it, and it does not appear to hurt them. I have known boys continue at mould running half a dozen years. There are not many lads over 13 employed at mould running, because the men could not afford to pay them. I never heard of a mould runner getting more than 6*s*.; they generally get 3*s*., 4*s*., or 5*s*. Several who work for cup and bowl makers get 6*s*. Children ought to be 10 years of age before they go to mould running. As a rule, children always get their half hour for breakfast, however busy their masters may be. It is very rare too that the hour for dinner is infringed. It is the exception for children to be employed after 6; our rule is to close the works at 6. When they are employed after 6, they work till 8 or 8½; this is when we have an unusual amount of work to be done. It is only the mould runners and the cutters of the children who are employed up to this hour, and they are rarely so employed; it does not exceed one week in 15. About 14 of the girls in the list would be cutters. There is only one girl on the works who runs moulds. The rest of the girls would be apprentice painters and burnishers.

Plate and Saucer Makers' Shops.

Herbert Rushton, age 12 years 9 months, mould runner.—I have worked two years. When I first began to work I turned jigger; I began to run moulds a month after. There are some boys who turn jigger for cup-makers who do not run moulds. I never worked through the morning without having my half hour for breakfast. I always leave the works at 9, and come back before half-past. I have my dinner according as to the time we have done polishing. I generally get my dinner about 10 minutes past 1. I have never been kept to work during 1 and 2, so as to prevent my going to dinner. I generally work to 6½. Sometimes we work after 6½, when we are "franked" (*i.e.* behind-hand) I have worked till 7. I never in my life worked after 7. I come to work in the morning sometimes at 6, at other times at 5½. I generally come at 5½. I was only once ill, it was two years ago; I had a sick headache; I didn't go to the doctor. I get 4*s*. 3*d*. a week; I got only 2*s*. at first; I have never got more than 4*s*. 3*d*. (Reads a little). I learnt to read on Sundays. I have gone to night school. I am not very tired after work; after I have swept out I go home. I have my tea and wash and sometimes go to bed.

Dipping House.

William Bartlam, assistant to the dipper.—I am going 12. I have worked six months in the dipping house. I brush ware before it is dipped. I have worked four years altogether. I get 4*s*. 6*d*. a week. I never was ill.

James Davenport, dipper.—No little boys under 13 have anything to do with the ware after it is dipped; they bring it to me to be dipped; I dip it and then the "gatherers" put it together. They should be 14 or 15.

William Batkin, "gatherer of ware."—I am going 15. I have worked three years in the dipping house. I never was ill.

Saucermakers' Shop.

John Copestick, saucermaker.—I employ three boys (Henry Hassall, 11 years 11 months; Joseph Hassall, 9 years 10 months; and Arthur Barker, 8 years 10 months). They all run moulds and turn jigger by turns, and wedge clay as they have time. I generally finish work about 7, sometimes before and sometimes later, when we are required to work later. I have never worked after 9. I have suffered from my work when I was young; I think it was owing to the heat and dust.

John and James Edwards' China and Earthenware Manufactory, Fenton.

Mr. J. Edwards.—I am of opinion that the number of beerhouses is the curse of the neighbourhood. Were it not for the number of beerhouses, many parents who now waste their money in drink would have plenty of money to keep their children at home and at school, without having to send them to work. Children now from childhood are accustomed to going to the beerhouses by being sent by the workmen. Formerly boys were ashamed of going to beerhouses. There is much more drinking in Fenton and in the pottery towns now than there was. The effect of the Beer Act has been very injurious to the neighbourhood. I do not think that children are employed younger now than formerly. Formerly platemakers did not have a jigger boy. We have no apprentices under 14. We bind all our apprentices by stamped indentures. The reason why boys over 13 cannot be got to run moulds is that they would cost more than the men could afford to give them, and besides at that age they begin to go to a trade.

Platemakers' Shop.

Edward Roberts, mould runner, age 11 years 9 months.—I come at 6 o'clock. I go away sometimes at 6. I sometimes stop till 8 or 8½, only once or twice a week. I get my dinner at 1. I have about half an hour or an hour for dinner. I have an hour three times a week. I have always more than an hour on Mondays. I always come at 6. I am sometime told to come before 6. I can't read.

The Pottery Manufacture.

Fenton.

Mr. F. D. Longe.

Sampson Meigh, dishmaker.— My boy is 9½ years old; he works for me; he comes about 7 and goes away always at 6; he runs moulds and turns the jigger. He worked at Watkins', for a dish maker, five months ago; he got 2*s.* a week. He goes to school. I could do without the 2*s.* I should be obliged to do without it if I could not get it. I was working very little when I sent him to work. My lad is worth 3*s.* a week now to anybody.

Robert Pearson, age 14.—I run moulds and wedge clay. I come at 6, never before; I go about 7, never after. I have my dinner at 1. I have till 2 for dinner. I never begin to work before 2. I get 5*s.* I work for a dishmaker; he employs no other lads.

Mr. Henry Wileman's Earthenware and China Manufactory, Fenton.

Platemakers' Shops.

Adam Shirlock, bowlmaker.—We do not find any difficulty in getting boys in Longton of 12 or 13 now. My lad is 11 and 6 months; I give him 4*s.* 6*d.* I have two boys of my own; one is over 10 and the other is over 8; they are both strong enough to work, but I will not have them work.

Messrs. Hawley and Co.'s China and Earthenware Manufactory, Fenton.

Mr. John Hawley.—I think, generally speaking, that it is a good rule to close works at 6; but I think that at times, in case of an order which has to be completed before a given day, when a ship is to sail, it is necessary to work overtime for some days. If we did not take the order, some one with larger works would take it, and he could complete it without working overtime. I think a rule that children should not work after 6 would be a good rule. It would cause some inconvenience. I think it is cruel working children overtime. The children are often made slaves of by the platemakers.

Messrs. Brown and Co.'s China Manufactory, Fenton.

Mr. J. Brown.—I think children are in many cases employed much too young, and that they are much injured thereby in mind and body. As a rule, they are the children of extravagant parents, who force their children into work too soon. I think it ought to be remedied. I am quite sure that a law preventing children being employed before they are 10 years old, and prohibiting their being worked after 6 o'clock, might be carried out. There is not so much paying wages at public houses now as there was, but still it is done. I know that the Act which applies to the payment of the colliers' wages is not carried out fully. I have often seen the wives of the men standing outside a public house, while their husbands are waiting inside for their wages.

F. and R. Pratt and Co.'s Earthenware Manufactory, High Street, Fenton.

William Smith, foreman.—We have five apprentice pressers, one apprentice platemaker. Those apprentices are not bound. The eldest would be about 18; the youngest about 15. We never take apprentices before 14. Although not bound, our apprentices never leave us. None of the apprentices are married.

William Stubbs, foreman.—As a rule, the potters begin to work at 7, and give over at 6; but their lads are obliged to stop about half an hour afterwards to get off the moulds. The men could do that just as well as the lads. I am quite sure that the lads working for the potters in this manufactory get their hour for dinner as a rule. They more often have more than an hour for dinner than less. Most of them dine in the shops or about the place, or in the street near. Some go home. The women who work here often cook their husband's dinners at the fires in the shops, and their husbands come from other places to get it. They also sew at times on the works.

Thomas Jenks, age 13.—I run moulds and make balls (*i.e.* make up lumps of clay for the potter, who makes potted meat pots). I have worked over five years. I come at 6; sometimes at half-past 6. I never come as late as 7. My master tells me to be here at 6. I stop to 6. Not often after that. I have stopped to 7; never later. I breakfast at 9. I have half an hour, and always go away. I have dinner at 1. I always have an hour, and always go away. (Reads a little.) I used to go to Fenton National School. I now go on Sundays.

John Fernyhough, age 10 years 1 month.—I run moulds and make balls. I have worked about two years. I come at 6; sometimes at 5½ on Friday mornings. I give over at 6 or 6½; never later. I have half an hour for breakfast at 9, and an hour for dinner at 1. Not always an hour; generally. I have only half an hour sometimes; on Thursday, Friday, and Saturday. I have six brothers and sisters; one, a twin brother, works here. The others don't work.

Longton.

William Webberly's China Manufactory, High Street, Longton.

Mr. W. Webberly.—I have resided in Longton 20 years. Before that I was in the office at Mr. Minton's. I do not think that children, generally speaking, are injured by being employed so young. Perhaps they are injured morally. Children are employed here at an earlier age than at Stoke, but they get higher wages. There are a great many young apprentices employed in Longton. They would generally be pressers in the china manufactories. They do not employ children. The labour is not so hard in china as in earthenware manufacture. I was chief bailiff of the town for three years, up to this year. I should divide the working population of this town into two classes, the provident and the improvident. Perhaps the second would be the largest class of the two. At the same time I know of no other town where there are so many workpeople who show provident habits. As a proof of this there are now about 60 manufacturers in Longton. All these men, with the exception of about three, have risen from the position of working men. These men are chiefly Longton men. As another proof, Dresden* is a suburb, built by a freehold land society. Most of the members of this society are working men. East Vale,† also, has been built by workmen, who have bought the land on which they have built their houses. With regard to the morality of the people: when I was chief bailiff I had occasion to investigate this matter, and I know that I have often heard the superintendent of the police here remark upon the fact that there was not a brothel in the town. I am quite sure that the beerhouses are not used for improper purposes of this kind. When times are good there is a good deal of drinking. But I know that there is not much drinking during church hours. I proved this when I was chief bailiff. Nor do I think that there is more drunkenness in the streets than would be seen in other large manufacturing

* The population of Dresden is about 2,000.

† The population of East Vale is about 1,500.

towns. I should say that Longton is the most independent place in the world. The men all think themselves as good as their masters, but they are well behaved. Education is low. Until recently there have been no regular day schools, except two or three in connexion with the Church of England. There are more now than there were.

We open our doors at 7 and close at 6. I know that all our men and boys are out of the works at 6. I know that the children are better treated now than they were. I do not see what benefit could be derived from legislation. I think, perhaps, that a law preventing children working after 6 would have a beneficial effect on the habits of the workmen. Nor do I think that masters would be injured by such a law. With regard to the half-time system, a change of hands in the case of paintresses, handlers, and pressers would be very inconvenient. As to the mouldrunners, their work might be done by relays, but the question would be whether the double number of boys could be got.

Potters' Rooms.

Dinah Fernahough, age 9 years 4 months.—I make handles. I have worked nine or ten weeks. I come at 7 or 7½ in the morning. I go away at 6. Sometimes I leave off at dinner-time. I never worked after 6. My father is a gilder. (Reads well.)

J. W. Barlow, Earthenware Manufactory, Longton.

Mr. J. W. Barlow.—We are sometimes compelled to work overtime to supply a shipping order. A man charters a vessel and then sends us an order for goods to be provided by a certain day, when the ship sails. These shipping orders form the principal part of the earthenware trade. The Longton manufacturers are not so much engaged in this trade as others. The working potters can never be so much under the power of the masters as other workmen, because the trade comprises so many distinct branches. The work of our branch cannot be done except by the men who have been brought up to that branch. So that our power of changing hands is very small. We cannot enforce the law over them, for if we sent one to prison, we could not get another man who would take his place.

Messrs. Aynesley and Co.'s China Manufactory, Sunderland Road, Longton.

Mr. Aynesley.—We always lock up at 6 p.m. Our workmen always leave off at that hour, nor do we ever, except in very rare cases, work overtime. As far as I am concerned, a law preventing children under 13 or 14 being employed at all after 6 would not be inconvenient. In fact, I think such a law would be very good. I would even have all work after 6 prohibited. But then my works are large enough to enable me to employ extra hands when necessary. This would not be the case with those manufacturers whose premises are smaller. I have been a workman and have experienced the evil of working in a badly-ventilated room; and in building these works it has been my ambition to have my rooms as convenient and well ventilated as possible for my workpeople. In building the stoves I considered about adopting the new stove, which does not require the boys to enter it for placing the moulds, but I came to the conclusion that this system (the old system) was the best for the workpeople. We do not want the same heat that is required for earthenware.

Messrs. Malkin, Walker, and Hulse's Earthenware Manufactory, British Anchor Pottery, Longton.

Mr. Malkin.—Generally our men work from 6 to 6. We do not lock up till towards 9. I should say our jiggerers worked three nights in the week to 7½ or 8. If there was an absolute law that the children employed by the men should not work after 6, if the men worked regularly between 6 and 6 during the first five days of the week, it would be better for the children, the men, and the masters. At the same time I do think that it is necessary, in case of certain orders, that we should be able to work after that hour, and even during the night. We should never employ the same hands during the night. I should approve of a law which compelled children who worked in the day to give over at 6, but which at the same time allowed us, when necessary, to employ a fresh set of men and boys for the night, who had not worked anywhere in the day. I do think that a law is necessary to give the masters the power of enforcing such regulations among the workmen. As to a law limiting the age at which children should be employed, I think that if children under 10 were not allowed to be employed, we, as well as the journeymen and apprentices, would be benefited. With regard to the half-time system, I think that it would be impossible to get the double number of lads. We have had a case only this week when a jiggerer could not work part of the week because he could not get a lad.

Platemakers' Shop.

Thomas Ball, age 11 years 7 months.—Mould runner. I have worked three years. I get 3*s.* a week. I come at 6; sometimes at 7. Never before 6. I go away at 7; sometimes at 8. Last night I left at 7½. I have worked to 8½ two or three nights in the week. I get my dinner at 1. I have three-quarters of an hour always. My father is a blacksmith. (Can read.)

Robert Jones, age 14, mould runner.—I have worked three years. I sometimes come at 5. I work for an apprentice. I come at 5 o'clock four days in the week. I work till 8 o'clock six days in the week. I get 4*s.* My master always tells me to come at 5 to wedge clay (denied by the apprentice). I generally find three or four here.

Samuel Edwards.—I am 8 next August. I turn jigger and run moulds. I have worked two years. I have no father. I have nine brothers and sisters. Mother does not work; she lives in Gate Street. I come at 5. I work for my brother, an apprentice (cannot read). I go to school. My brother gives my mother 2*s.* a week for me. My father died 1½ years ago. I went to work before he died. He was a plate-maker. I have always worked with my brother.

John Murray, age 12.—I turn jigger and run moulds. I come at 6. Sometimes I come at 4. I worked all night last night, till 6 o'clock this morning. I have not been in bed since the night before last. There were eight or nine boys working last night. All but one have come this morning. I have not worked any other night this week. I get 3*s.* 6*d.* I do not get any more for working at night. I have worked five times in my life all night. I worked two nights last week. Saturday night I worked. I went to bed on Sunday, and began to work again at 12 o'clock on Sunday night. I worked till dinner-time on Monday. I then came again at 6 o'clock on Tuesday morning. I gave over at dinner-time, and went to the fair. I generally work at Baker's, at Fenton. The man I work for there is ill. (Can read.)

The Pottery Manufacture.

Longton.

Mr. F. D. Longe.

Messrs. Holland and Green's Earthenware Manufactory, Longton.

Mr. E. Holland.—I was myself a mould runner when I began. I suppose I was about 9. I began as young as possible. At 14 I was apprenticed to a presser. Then I was apprenticed to a mould maker. Then I was a modeller. After that I was a manager for 20 years, and now I am a manufacturer. I think the treatment of children is much better than it was. The children on our manufactory are not so young as they used to be. If they are too young, we send them away. I do not think that they ought to be employed at any part of the work before they are 10. I do not think mould running is so unhealthy now as it used to be. The places are more open. Our hours are from 6 to 6. Occasionally we work overtime to 9. I think that the potters are an intemperate lot. They very frequently waste part of the week, and then work themselves and their children after time to make it up. We have tried to prevent it by fining the men. They leave us then instead of paying the fine. A constant changing of hands is very inconvenient. We have about 20 apprentice potters. We do not generally bind them. If they are good they will stop, and if they are not good we do not want them to stop. When trade is good they will go sometimes, but I should not say we have any difficulty in this way.

Mr. Green.—We very rarely have any necessity to employ men or boys at night. We are obliged sometimes, for this reason: If we have an order for a particular kind of goods that can only be made on particular jiggers, we must work those jiggers at night as well as in the day in order to complete the order. We should always have a fresh set of boys, and generally a fresh set of men too. It is only in cases where goods of a particular kind are required, and where very little time is given us to make them. As a general rule the orders would be much the same as to the quantity of the different kinds required. I think it would be impossible to carry out an absolute rule (in the case of the platemen for instance) as to leaving off for dinner at a fixed time. We had night work about three weeks back; before that we have not required it for more than two years back.

Stephen Colclough, age 11 years 4 months, mould runner.—My father is a bowlmaker. (Can read.) I have not been to a day school for two years. I always go on Sundays. I cannot read so well now as I could when I first came to work. I come between 5 and 6. My master generally comes at 7. I go away at 6½. I never stopped later than 7. I get my dinner at 1 or 1½. I always go home. I have an hour; sometimes three quarters of an hour. I get 4*s*.

John Cooper, apprentice platemaker.—I could not leave off for dinner exactly at 1 o'clock, because when I have filled my moulds I must finish polishing them before I go to dinner.

Mr. Simpson Bridgwood and Son's China and Earthenware Manufactory, Longton.

Mr. Simpson Bridgwood.—It would be excessively difficult for the masters to employ the children. For instance, the saucer maker takes his work at a certain price. He then employs his one, two, or three lads at whatever price he can get them. If we were to find him boys, he would complain that they did not suit him. So, too, if we hired the boys, we should have to pay them when they were doing nothing, owing to the men being away.

Mr. Bridgwood, jun.—I should fully approve of a law which prohibited children working after 6 o'clock.

Charles Bullock, China Manufacturer, High Street, Longton.

Mr. C. Bullock.—I have always been a great advocate for the education of the children employed in manufactories, and have been connected with many movements for carrying out that object. I cannot see how the half-time system could be carried out in the pottery trade, there are so many different branches which require learning. Nor could we have a change of hands in the case of some of the work, for instance, in the case of the paintresses; a change of hands would be a change of patterns in the several cups or saucers of one set. It takes just three years to learn to paint before her work is profitable to her employer. And if they do not begin to learn before 13, they would be marrying before they were of any use to us.

Jonathan Chetham, Earthenware Manufacturer, Commerce Street, Longton.

Mr. J. L. Chetham.—We have felt that the children employed in our works and in similar manufactories require improvement. But we do not see clearly by what legislative enactment that is to be brought about. The lads are employed by the men, and I do not see how that system can be altered. An attempt to do so would give great trouble to the masters and great dissatisfaction to the men. I think there would be very great difficulty in carrying out the half-time system. There is now a difficulty in getting lads. I think that a rule preventing children working after 6 would be inconvenient when we had pressing orders to complete. No children ever come into our works to work before 6. It is a year or more since they have been required before this time. We lock up at 6. We should work to 9 in case of a pressing order. I never heard of a mould runner being injured by over work or the heat of the stoves.

Messrs. Newbon and Beardmore's Earthenware Manufactory, Longton.

Mr. Beardmore.—I have been a working potter. I was a hollow-ware presser. With regard to a law requiring children to leave off work at a fixed time for dinner, I should think it would be practicable. I see nothing to prevent platemakers leaving off for dinner at a fixed time. We make a rule of locking up at 6 o'clock, and we succeed in getting our men out at that time. There is no real advantage whatever in working overtime.

James Broadhurst and Son's Earthenware Manufactory, Stafford Street, Longton.

Mr. J. Broadhurst.—I think if there was a rule that children should not be employed after 6 p.m., it would be a good rule and not prejudicial to our interests. With regard to shipping orders, I would rather not undertake an order that pushed us. We should sacrifice more than we should gain by such orders. The half-time system could not be worked, we should require a double number of lads, and we have but enough now.

Plate Shops.

Samuel Key, age 13.—I have worked five years.

The Pottery Manufacture.

Longton.

Mr. F. D. Longe.

I run moulds and wedge clay. I get 4*s.* a week. My father is a shoemaker. I come at 6 ; sometimes at 5½ on Wednesdays, Thursdays and Fridays. I go away at 6 or 7 ; sometimes at 7½ or 8. Some weeks I never stop to 8 all. I always have an hour at 1 for dinner and go away. I can't read.

Henry Hudson, age 10.—I work for my brother. I have worked two years. (Can read.)

Mr. Thomas Bentley's China Manufactory, Longton.

Mr. T. Bentley.—We have two boys of about 17 or 18 who sit up to attend the ovens at night. They sit up one night in the week each. Our hours of work are from 7 to 6 all the year round. We object to working overtime and never do it. It is not once in six months that any of our men work after six, and then it is only the throwers and turners.

Thomas W. Fone.—I am 9 years old. I make jugs. I have worked about three weeks. I work for Mr. Bentley. I come at 6½ or 7 ; once I came at a quarter to 6 ; I was not ordered to come ; mother let me come. I go away sometimes at 5 and sometimes at 6. (Reads well.) I learnt at Church school. My father is a mouldmaker and works here. I have only two brothers ; they don't work. Mother does.

Burslem.

Mr. Joseph Shirley, Manager of Messrs. Davonport and Co.'s Earthenware Manufactory, Burslem.

I have been in this trade 30 years. Of late years more children have been employed in this trade than formerly, owing to some cups and bowls being made by the cup and bowl maker now, which were formerly made by the thrower. With the jigger and the children, more plates and cups, &c. are made now than formerly. I do not think jigger turning is hard work. When business is brisk there is a great difficulty in getting boys. I cannot at the present time call to mind any case of a boy being injured by mould running. If I had heard of such a case I should have interfered to prevent its repetition. If a man neglected his business, we should not let him work out of regular hours. When we find little boys in the works we complain to the men ; they generally say that their parents are poor and cannot afford to keep them at school. We have a pug mill worked by steam which renders the clay more fit for use, so that it does not require much wedging. We have had it in use 40 years ; it eases the boys, but it makes no difference in the number of boys used.

Mr. Pinder's Earthenware Manufactory, Burslem.

James Goodall, dipper's assistant.—I am going 14. I have been two years in the dipping house. I have been away seven or eight times from work. I was ill three months once ; I could not work ; it was 12 months ago. I have no father ; I have five brothers. The biggest gets 8*s.* a week ; I get 7*s.*

Stoke-on-Trent.

Thomas Walker, Hollow-ware Presser at Messrs. H. Minton and Co.'s Earthenware Manufactory, Stoke-on-Trent.*

I have worked here 52 years, and am now 65 years of age. My father was a potter also ; he was 75 when he died ; he began work at 10 years of age, as assistant to his father, who was a dipper. During my lifetime and that of my father the potters in this district worked through the winter. Sometimes we had a fortnight's holiday at Christmas. Stock used to be taken in at Christmas, and sometimes in case of a very hard frost we could not commence work for some days, but we never stopped for more than a fortnight. Stock is now generally taken in in August. We have never had any frost to stop us since 1814 ; and then many of the manufactories were kept in work.

Chatterley Place, Shelton, Hanley,
October 29, 1862.

My dear Sir,

In reply to your letter I beg to say that at an unofficial meeting of about 10 or 12 manufacturers at my house on 4th June last, the majority were of opinion that the employment of children in the manufactories under 10 years of age might be prohibited, and the hours of work of children between 10 and 13 might be restricted.

And at a meeting of the Chamber of Commerce held on 25th June, a resolution was passed, of which I send a copy on the other side.

All the manufacturers whom I have heard speaking on the subject hitherto have been of opinion that the half-time system would not be practicable at the manufactories.

I remain, &c.

F. D. Longe, Esq. Frederic Bishop.

"The subject of the employment of young children in the manufactories (upon which a Government commission is now engaged in the Potteries making inquiries) having been considered,—Resolved, That in the opinion of this meeting it would be practicable and desirable to prohibit by law the employment in the manufactories of children under 10 years of age, and to restrict the hours of employment of children under 13 years of age to 10½ hours per day."

EVIDENCE OF MEDICAL MEN.

Mr. Robert Garner, F.L.S., Surgeon, Stoke-on-Trent.—The series of cases† which you have shown me represent a class of cases very common among children of a similar age who are employed in our manufactories. They principally occur among the children employed in the pottery manufactories, but they are also to be found among the young lads employed in the coal pits. In my opinion these diseases are either caused or aggravated by the nature of their employment, and by their being worked beyond their strength. These observations apply to all young persons. The girls particularly are injuriously affected by being kept at sedentary work for too many hours. I think that the boys too are often worked beyond their strength, which causes great injury to their constitutions.

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* I took this evidence with reference to a statement in Dr. Greenhow's report. See Third Report of the Medical Officer of the Privy Council, 1860, page 105. It is there stated that "formerly the Potteries were *annually* closed for some weeks in frosty weather."

† See list of cases extracted from the register of in-patients at the North Staffordshire Infirmary.

The Pottery Manufacture.

Mr. F. D. Longe.

34, Eversfield Place, St. Leonards-on-Sea,
Oct. 30, 1862.

DEAR SIR,

IN reply to your letter, which has just reached me, allow me to state that the list of cases of disease which I gave* you bore reference entirely to in-patients. By far the greater majority of cases are treated as *out*-patients, in order that they may have the benefit of fresh and pure air.

With regard to the prevalence of these diseases among the children employed in the potteries, I can only speak from personal observation and not from statistical data, but I do not hesitate to assert that my indignation has been aroused again and again at the sight of poor children whose health has been sacrificed to gratify the avarice of either parents or employers. My attention was first directed to this subject by the frequency with which such cases came under my notice, and I resolved to publish a monograph on the "Causes of Mortality amongst Potters and Miners," but was checked by the "register" of deaths failing to give the trade of those dying under a father's roof.

As to the causes which lead to those diseases they are briefly :—

1. Working in rooms of a high temperature.
2. Sudden transitions from a high to a low temperature, especially in winter.
3. Employment at too early an age.
4. Employment in branches of trade unsuited to the physical powers of the child, although the age may be suitable.
5. Twelve or 14 hours' daily employment, or, in other words, "long hours."

In a short letter like this it is impossible to do more than glance at these evils ; but I could easily convince any one of the existence of them, if they would listen to physiological facts. There are certain laws of life which cannot be transgressed without involving the punishment of disease, and it is not difficult to see the effect of persistence in such conduct on the physical development of future generations.

* LIST of CASES of DISEASES extracted from the REGISTER of OUT-PATIENTS at the NORTH STAFFORDSHIRE INFIRMARY.

No.	Name.	Age.	Employment.	Disease.
	1854.			
196	Isaac Ball	12	Potter	Disease of hip-joint.
317	Marg. Callaghan	11	Paper cutter	Strumous ophthalmia.
375	Hannah Lewis	11	Do.	Do.
723	Maria Darbar	11	Potter	Necrosis.
	1855.			
427	Geo. Wilbraham	11	Do.	Disease of hip-joint.
	1856.			
370	Joseph Boulton	12	Do.	Do.
608	Thos. Pennington	12	Do.	Disease of knee-joint.
	1857.			
739	Mary Ann Dean	12	Paintress	Struma.
807	Michael Ragan	11	Potter	Necrosis.
	1858.			
204	Sam. Lavel	11	Do.	Struma.
	1859.			
407	John Bailey	12	Do.	Disease of hip-joint.
910	John Parkes	10	Do.	Albuminuria.
60	Jos. Roberts	12	Do.	Rheumatism.
109	Jas. Ravenscroft	9	Do.	Curvature of spine.
	1860.			
212	Thos. Clewlow	10	Do.	Do.
297	Geo. Brough	12	Do.	Lumbago.
369	Chas. Wood	9	Jigger turner	Phthisis.
412	Thos. Whitfield	10	Potter	Strumous abscess.
488	Rich. Hickton	11	Do.	Tubercular peritonitis.
539	Chas. Brough	12	Do.	Struma.
583	David Pickin	11	Jigger turner	Strumous elbow-joint.
768	Sam. Wright	12	Potter	Corneitis (strumous).
865	Chas. Buskerfield	10	Do.	Lead palsy.
891	John Powis	11	Do.	Psoas abscess, struma.
117	Edw. Doyle	11	Do.	Rheumatism.
	1861.			
308	Eliz. Farr	11	Potter	Necrosis.
358	John Toft	12	Do.	Struma.
865	Sarah Bradley	12	Paper cutter	Phthisis.
17	Hugh M'Avan	10	Mould runner	Dropsy after scarlatina.
215	Grace Whitehouse	12	Paintress	Urethral sore.
	1862.			
243	Henry Thorly	13	Potter	Febris, effusion into brain.
558	John Marshall	11	Do.	Struma.
583	James Bate	13	Do.	Chorea.
668	William Hill	12	House painter	Pneumonia, left.

Would that I could suggest a remedy ! It is difficult to legislate for all. Opposing interests are involved. But that there is room for improvement no one can deny.

If I can help you with any further information, pray let me know.

I have, &c.
CHARLES PARSONS,
Late House Surgeon to the
North Staffordshire Infirmary.

Mr. Thomas Goddard, surgeon, Church Street, Longton.—I have been established as a practitioner in Longton for nearly 48 years. There are some processes in the pottery manufacture which are very unwholesome ; particularly the dusting and scouring china, which is done by girls of ages from 12 to 18, which brings on consumption. This is the prevalent complaint among persons employed in that work. The fine particles of flint, which are insoluble, irritate the mucous membrane of the air tubes, which induces this complaint wherever there is any predisposition to it. Consumption is rather prevalent in Longton. The town is elevated and the atmosphere is damp, owing to the retentive nature of the clay soil. Bronchial affections are induced to a great extent by the process of slip making. The vapour of the slipkiln is the cause of the disease. I do not think that mould running is a wholesome employment, but I am not prepared to say that it lays the foundation of any particular complaint, nor can I at this moment remember any case where a child was suffering from any complaint attributable to his work as a mould runner. The preparation of the gold for gilding by nitro-muriatic acid is also injurious to the air tubes, but only a few persons are employed in this work. I do not think that the children are injured by overwork. The men sometimes lose time in the early part of the week, and then work themselves and their children long hours to make it up ; but as the children have a holiday while the men are away, their work becomes balanced. The old buildings are very defective in ventilation, but those which have been built recently are very much improved in that respect. I think that the bronchial affections which are so prevalent in the neighbourhood may be partly attributed to the cold damp climate.

SIR,

Hanley, May 29, 1862.

I CONSIDER legislative interference necessary in this district to prevent children being employed at too early an age, and for too many hours, both in our mines and manufactories.

I have not observed the health of children employed in mines materially affected by their occupation ; their work is generally light, opening and shutting doors, hooking in tubs, and so on, and generally in those parts of the pits where the air is purest.

But I have known the health of many children permanently impaired by overwork at too early an age as mould runners in very hot and ill-ventilated workshops in the manufactories. No child of either sex should be allowed, in my opinion, to be employed in a manufactory under 10 years of age at the youngest, nor employed under 14 more than 10 hours per day, including 1½ hours for meals.

Every child under the age of 15 not able to read well and write legibly should be compelled to attend school three hours per day, between 9 o'clock a.m. and 5 o'clock p.m., such attendance to be subtracted from the working hours.

Such a restriction might be considered unfair by parents and employers in the outset, and might produce some little inconvenience in the carrying on of a work, but it would make parents so much more anxious to send their children to school when young, and they would feel more interested in the progress their children made at school, that in a few years very few children indeed would offer themselves for employment at 10 years of age who could not read and write well.

But a subject more detrimental to the health both of children and adults might very profitably receive

some attention from the legislature, I mean the faulty construction, imperfect ventilation, and over-crowding of workshops, rendering an employment unavoidably unhealthy, one of the most deleterious and destructive to human life of any in this country. Great improvements have been effected in many manufactories of late years, but much, very much, remains undone still, and not very likely to be done without pressure of some kind from without.

Excuse, please, my few hasty remarks ; I am sorry I have unfortunately been from home when you called, as I could wish to have gone into the whole matter at greater length than my engagements permit me to do on paper.

Feeling as I do that the children of this district are entitled to more protection from the legislature than it has yet afforded them, I subscribe myself

Yours, &c.

Benj. Boothroyd, M.R.C.S.E.,
Mayor of Hanley.

Sir, Shelton, Staffordshire, June 7, 1862.

In reply to your letter of May 15th, enclosing Appendix No. 1 of the Reports of the Employment of Children Commission, which was supplied by myself in 1841, I beg to inform you that the statements contained in this Appendix are applicable to the present state of things. There has been little change during the last 20 years. The same employments are occupied by children as at the former period, and legislative supervision of these children is as necessary as ever.

I will now describe a few things which convince me that these children require legislative protection to prevent their being in any way abused. And, in doing this, I shall confine myself to those manufactories which are the best regulated in the neighbourhood.

I have before spoken of the platemakers and their *mould runners*, who are little boys. These little boys have to take the moulds from the platemaker, when charged with the newly moulded clay plate, and carry it into a very hot stove to dry. The boys are very thinly clad, they generally have a pair of trousers and a shirt on, and are without shoes and stockings, and are kept on the run all day long. They carry from 30 to 50 dozens of these charged moulds into the stove, besides stopping there to take the dried plates off the moulds to be refilled. The boys here carry two moulds at once. An attempt has latterly been made to relieve them from the great heat of the stove by having ventilators placed at the top and the bottom of each stove. But these ventilators lower the heat of the stove, and thus prevent the rapid drying of the plates, hence it often happens in manufactories in which the ventilators have been introduced they are closed by the platemakers.

The platemaker has another boy called a "jiggerer," who stands and turns the wheel or jigger on which the platemaker works all day long. Those who make saucers and bowls also have a jiggerer. In this way the platemaker has two boys in attendance upon him, the "mould runner" being required in addition to wedge the clay, a very laborious occupation, described in my former remarks.

I fear the boys generally are somewhat abused. In many manufactories the workmen are allowed to hire, to pay, and to discharge these boys, quite independently of the manufacturer. In this way the boys are got for these laborious duties as cheaply as possible, and, where his master is not strictly honest or is addicted to intemperance, the boy sometimes loses a portion or even the whole of his wages. In these and similar cases I have often noticed these thinly clad and ragged lads going about the town to beg bread during the meal hours when they were regularly at work.

It is only at some manufactories that there are pug-mills, which compress the clay and half wedge it, thus saving much violent muscular exertion of the mould runners. If pug-mills could be introduced at every manufactory it would be a relief to the boys.

The age of the mould runners is from 8 to 12 years, none of them being above 12.

There is a series of *oven boys*, from about 10 to 12 years of age, who are employed to get in and prepare the coals inside the hovels, to be put into the ovens for the purpose of firing the ware. Each oven requires about five tons of coal. These young boys are required after their day's work to sit up with the fireman all night to attend to the ovens. This may happen about twice a week.

I fear that the evils to which children are subjected in the manufactories are not materially diminished during the last 20 years. If the legislature, by laying restrictions upon the employment of children in the manufactories, could prevent their being overworked and abused, it would be a happy thing.

I am, &c.

Francis D. Longe, Esq. J. B. Davis, M.D.

P.S.—It is probable that it may be asked what is the future career of mould makers who survive the dangers of youth and grow up to manhood? They frequently become platemakers in their turn. It is a rare thing to meet with a platemaker beyond 45 years of age.

Mr. H. May, surgeon, Trentham Road, Longton.—I have been in practice in Longton nearly 10 years. I am not aware of any particular injurious effects which are caused by the early employment of children in the pottery manufactories. Of course it is not such healthy work for them as employment in the open air. I think consumption is induced by the heat of the shops in which the potters work, That applies to persons of all ages. In a moral point of view I think that the children are very much injured by being worked so young. They are deprived of all education ; they get soon into irregular and dissolute habits ; and I think their health thus becomes injured by drinking and other immoralities.

Hanley, Albion Street,

Sir, June 4, 1862.

I have to acknowledge due receipt of your letter of 23rd ult., and owe you an apology for being so tardy in answering it.

From experience and observation, I should say that the diseases generally prevalent here among the working potters are such as indicate a low degree of organic vitality, such as pulmonary consumption, certain kinds of asthma, heart disease, scrofulous disease of the joints, and dyspepsia in many of its forms.

If I were to state in few words the more frequent and efficient causes of these diseases, I would name the confined, hot atmosphere in which a great portion of pottery work is carried on, surcharged as it is with the dust particles of the clay, and the alternations of temperature to which the men are in many departments of the work exposed. There is a disease called "wrist drop" (a paralytic affection of the arms—wrists espe cially—hence the name) occasionally seen, caused by the men having to do with certain preparations of lead used in glazing, and, I believe, colouring the ware. It and "lead cholic" are not by any means so common as they formerly were, and that from greater cleanliness and more general care in the use of the lead by the operatives.

As to "mould running," the peculiarity of that work being the sudden and frequent changes from an atmosphere of average temperature to one of 110°, 120°, or 130°, such employment cannot fail of being attended by unhealthful consequences to the young people engaged in it ; and when the, in my opinion, low vitality possessed hereditarily by these young people is considered, thus endowing them with greatly diminished vital force wherewith to resist against the deterioration consequent on such employment, the result can readily be understood.

I am, &c.

Francis D. Longe, Esq. Hen. Fairmann, M.D.

The Pottery Manufacture.

Mr. F. D. Longe.

Mr. M. Ashwell, surgeon, Brook Street, Stoke-on-Trent.—I have resided in the pottery district 27 years altogether, but only 10 years as a medical man. I have not observed any deterioration in the physical condition of the operatives. I do not think the employment generally speaking is unhealthy. I do not think the employment is more injurious than formerly. The tile manufacture, which is comparatively new, is an unhealthy process, owing to the dry material which is used instead of moist clay. I consider that struma is induced by the close confinement, but I do not think that that disease is very prevalent. The branches which would induce it are limited. There is not so much consumption here as at Nottingham, where I resided formerly. I do not think that children or young persons are so much injured as adults, because they are not so much engaged in the unhealthy employments. I think children are kept to work too long, and that although it does not produce any specific disease, it must act injuriously on their health. The children certainly go to work at too early an age, but I am not prepared to say what age should be the limit. In Stoke the manufactories are large and well ventilated. I think the half-time system would be very beneficial to the young children. I think that a potter who had not begun to work at all, or had only worked half-time until he was 14, would, *cæteris paribus*, be a stronger man at 50 than one who had begun to work at 8 or 9, according to the present practice.

Newcastle-under-Lyme,
October 31, 1862.

My dear Sir,

I have much pleasure in replying to your queries, though I fear my replies may not be so satisfactory as you might wish.

1. I have had my attention directed to the health of the potters in this district since May last, when I entered on my duties as senior physician to the North Staffordshire Infirmary. At that institution I am in the habit of prescribing for between 200 or more patients weekly (almost all adults, and all above 9 years of age), the majority of whom are potters. My private practice has also brought me into contact with many workmen in the pot-works, and I have a general acquaintance, by visiting the works, with the nature of the several departments of the trade and with the arrangements and buildings of the factories.

2. The potters as a class, both men and women, but more especially the former, represent a much degenerated population, both physically and mentally. They are, as a rule, stunted in growth, ill-shaped, and frequently deformed in the chest; they become prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases, they are especially prone to chest disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter's asthma or potter's consumption.

Scrofula, attacking the glands or bones or other parts of the body, is a disease affecting two-thirds of the potters and their offspring.

The men are more subject to chest disease than the women. Of the latter, those employed in "dipping" and in "printing" suffer most, and those engaged in painting, burnishing, and in the warerooms least. The most sickly men are the hollow-ware pressers, ovenmen, and dippers.

3. The causes of the bad health of potters are generally hereditary predisposition from parents engaged in potting; the early imposition of labour in childhood; intemperate and immoral habits, engendered at an early period by the association of adults and children of both sexes together in factories.

Particular causes are to be found in the humid atmosphere of many of the workshops; in ill-ventilated, though drafty workshops; in alternations of temperature; in the diffusion of much dust in some departments; and in the use of lead with other noxious matters in glazing, &c.

4. Children are injured by every morbific agency at work to a greater extent than adults. Confinement in rooms, bad air, and prolonged labour are especially productive of scrofulous disease in childhood, the development of the frame demanding a fair share of exercise in the open air, and freedom from the wear and tear, mental and bodily, involved in regular and prolonged work. I should particularly anticipate injurious results to such children as are employed with the liquid or wet clay, especially in rooms where the temperature ranges rather high, for a warm moist atmosphere peculiarly favours the production of chest disease, of tubercle, and scrofula.

5. The labour of children should decidedly be restricted to a certain age (say 10 years of age) and to a limited number of hours, as is done in the cotton factories. But confinement in close school-rooms after the hours of labour would be but a little improvement over extended labour in the workshops.

By restricting the employment of young children as proposed, I should certainly calculate on an improvement in the physical, mental, and moral condition of the labouring classes of this district. It is impossible for the immature human frame to reach a healthy maturity and development if overtaxed by labour and exposed to the morbid conditions of existence in a great measure inseparable from manufactories. The unhealthy child is an unhealthy parent in his turn, and a progressive deterioration of the race must go on. That the "degenerescence" of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and to intermarriages with more healthy races.

I remain, &c.

F. D. Longe, Esq. J. T. Arledge, M.D.

Statement of the Rev. H. SANDFORD, Assistant Inspector of Schools.

1. As one of the inspector of schools in this district, your attention has been called for some time back to the early age at which the children are taken away from school in the potteries?

1. Yes, I have noticed it for the last eight or nine years. In all but one of the National schools under inspection in the potteries, the mass of the scholars are under 9 years of age; in far the greater number of these schools they are very young, as you may see from the following table:—

Name of School.	No. of Children, Boys, Girls, and Infants in actual Attendance in Oct. 1862.	No. of these Children over 10.	Per-centage over 10.	No. of these Children over 12.	Per-centage over 12.
1. Burslem, St. John's -	340	42	12	11	4
2. Burslem, St. Paul's -	121	19	17	2	2
3. Cobridge, Earl Granville's	105	20	20	4	4
4. Cobridge, N.S. - -	120	10	8	2	2
5. Fenton, N.S. - -	139	22	14	3	2
6. Golden Hill, N.S. -	164	16	10	6	4
7. Hanley, N.S. - -	250	37	15	7	3
8. Hanley, St. Luke's, N.S.	127	6	5	2	1
9. Hanley, Joiners' Square	36	1	2	0	0
10. Hartshill - -	112	21	19	9	9
11. Hope, N.S. - -	118	6	5	0	0
12. Normacote, N.S. -	67	6	8	2	3
13. Northwod, N.S. - -	183	26	16	9	5
14.	140	23	15	7	7
15. Shelton - - -	320	40	12	10	3
16. Stoke, N.S. - -	403	71	17	28	6
17. Stoke, Mount Pleasant	108	9	8	3	3
18. Stoke, Boothen Branch	75	2	3	1	2
19. Stoke, Cliffe-vale -	150	3	2	2	2
20. Tunstall, N.S. - -	261	31	12	13	4
21. Tunstall, St. Mary's, N.S.	81	17	20	0	0
22. Wolstanton - -	130	21	15	6	4
Totals - -	3,550	552	13	127	3·6

Thus little more than 3 per cent. of the children are over 12 years of age, about 12 per cent. are over 10 years of age. There are four non-parochial schools under inspection, which I do not visit, in which I fancy the proportion of older scholars is somewhat higher.

2. Do you believe children are taken from school at an earlier age in the Potteries than in other districts you are acquainted with ? Over what area does your experience extend ?

2. Speaking generally, I should certainly say that the children are taken away from school in the Potteries earlier than in any other district. There are a few schools in the silk district, as that in St. Luke's parish, Leek, in the neighbourhood of which there are numerous factories not under the Factory Act, where the girls are very young,—out of 180 children, not 10 are over 10 years of age. Again, there are some schools in the coal and iron district of South Staffordshire, such as those in Horseley Fields, and Monmore Green, Wolverhampton, Brockmoor, near Dudley, where the boys are taken almost as young from school as in the Potteries, certainly where they are rendered much more rude and coarse by their employment ; but speaking of whole districts, the average age of children in pottery districts is lower than elsewhere.

Thus, for instance, in the country districts of this county, I find only 43 per cent. leave school before they are 10 ; in the Potteries the proportion is 75 per cent. The following table will show that in the country schools of North Staffordshire the proportion of older children is much larger than in the Potteries. In the country district, too, older lads often come to school in the winter.

Name of School.	No. present.	Over 10.	Per-centage over 10.	Over 12.	Per-centage over 12.
1. Alton, N.S.	67	10	14	4	6
2. Cauldon Lowe	66	20	29	9	14
3. Caverswall	65	20	29	8	12
4. Ellastone	97	36	40	16	16
5. Dilhorne	45	16	34	8	17
6. Hanbury	71	24	31	10	13
7. Ilam	93	56	52	31	33
8. Ipstones	160	48	28	23	13
9. Kingsley	125	25	20	19	15
10. Leigh	25	7	26	6	24
11. Sheen	75	22	28	20	27
Total	895	284	32	154	17

Thus in these country schools the per-centage of children over 12 years of age is 17, about five times what it is in the schools in the Potteries. The per-centage over 10 years of age is 32, compared with the 13 per cent. that are over 10 in the pottery schools.

3. You say you have noticed little or no improvement in this respect since you first became acquainted with the district ?

3. No, the improvement in education that has taken place in the pottery towns has been with regard to the employment of better teachers, the establishment of fresh schools, and the higher standard of intelligence among the children, but the age of the scholars is, to judge from the schools I am acquainted with, as low as it ever was ; the following table seems to show this :—

Name of School.	Centesimal Proportion of Children over 10 in actual Attendance.	
	1856.	1862.
Hanley, N.S.	40	15
Stoke, N.S.	20	17
Tunstall, N.S.	18	12
Wolstanton, N.S.	8	16
Average	21	15

Owing to the increase in the number of infants, with which the schools are in many cases crowded in a way to be very troublesome, the per-centage of older scholars, though not the actual number (which has increased), is in most schools lower than it was.

Compared with other districts, the number of children under education in the week-days throughout the Potteries is not large. I give the proportion of children in public day schools to the total population for certain towns in the Potteries.

—	Total Population.	Number of Scholars at different public Week-day Schools.	Proportion per cent. to the Population of Children in public Week-day Schools.
Burslem (exclusive of Cobridge).	17,200	960	5·4 or 1 in 18.
Hanley and Shelton	25,350	1,710	7·5 or 1 in 14.
Longton	16,742	1,100	6·8 or 1 in 15.
Stoke-on-Trent	11,385	1,080	10·5 or 1 in 10.
Tunstall (St. Mary's parish).	9,560	600	6·8 or 1 in 15.

4. Is the number of children in public day schools in this district small compared with what it is in other districts ?

4. In certain parts of the district this proportion is remarkably small if compared with the rest of England. Taking the whole of England and Wales, the number of children attending public elementary schools is about 9 per cent. of the whole population. In Staffordshire, taking the whole county, it is 1 in 12. In Wiltshire, 1 in 9. It is about 7 per cent., or 1 in 15, at Longton. Of the five parochial schools in Longton, not one is under inspection. I suppose Longton is the only town in England where, with a population of 15,000 or 16,000 there is not one parochial school availing itself of the aid offered by the Committee of Council on Education.

In Burslem the proportion of children in public week-day schools seems to be small. The Wesleyan school there, which generally carries off a good proportion of the prizes offered by the manufacturers, has, I believe, a fair attendance of girls ; but in the parochial school of St. John's, Burslem, in a district containing 6,700, the average attendance has been kept down to about 60 during the eight years for which I have visited it, though the school has always been under trained mistresses and has been fairly conducted. The attendance is very fluctuating ; frequently more children leave the school during the year than are in attendance at any given time. The infant school alone thrives in point of numbers in this district, leading one to conclude that a large proportion of the children leave school for work after the age of infancy.

5. Your statement shows that a great number of children leave the day schools at a very early age. Have you any facts to show what is the effect of this practice on the education of the young people of the district ? Are you acquainted with the working of Sunday and night schools in the district ?

5. Education does a great deal in this district in spite of the early age at which the children leave school. At the same time I have reason to believe that owing to this, there is a great amount of ignorance among certain classes of the young workpeople of the district. In a statement that I made to the manufacturers, I brought forward certain facts in proof of this. The following statistics with respect to the state of education in the night schools and Sunday schools bear on this point. The first table refers to certain evening schools that I visited in the beginning of this month.

Total Number of Scholars present.	No. of them who could not read the Testament.	No. of them who could not write their Names.
256	138	127

Thus fully one-half were unable to read the Testament. Most of these untaught lads and girls were mould runners, jigger turners, and paper cutters ; generally it is the very young night scholars who are thus ignorant.

There are some very intelligent classes of elder lads and young men, as, for instance, at the Fenton,

The Pottery Manufacture.

Mr. F. D. Longe.

Hanley, Stoke-on-Trent night-school; but generally speaking the standard of attainment (not of intelligence, for naturally they are intelligent enough) is low among the young working lads and girls who attend the night schools. In one of the most favoured districts, in a well-conducted night school of 50, I found only nine who could work a sum of compound multiplication. Out of about 120 young potters belonging to some other evening classes, not more than seven could work a sum in compound multiplication. My conviction is, after a good deal of experience, that it is very unsatisfactory work trying to teach the very young and backward in night schools; that after they have been working 10 or 11 hours in a close atmosphere, it would be much better for them to be inhaling pure oxygen in the open air than fresh doses of carbonic acid in the gas-lit school-rooms. The difference between the fine fresh-looking girls that I found in the night school at Kidsgrove, who had been engaged in the ordinary household work at home, and a large portion of those that I have met with in the night schools in the Potteries, is very great. I say a portion, for it is chiefly the younger children,—paper cutters, painters, mould runners—who look so pale and exhausted in the evening classes. It was noticed to me in one school, that after sitting so many hours over the painting, some of the girls could with difficulty see the words in the books they were reading. I must say that, from what I have seen of them in nights chools and elsewhere, the young people from the works,—the girls especially,—seem gentle and amiable; only the more reason is this why they should be rescued, as far as possible, from the evils that affect their mental and physical state.

With regard to Sunday schools, I am not much acquainted with their working in this district. I am aware that they are numerous and well attended, but too many of the teachers are quite unskilled. In some ragged Sunday schools that I visited, attended almost exclusively by young potters (there were some collier boys present), there were—

Present.	Unable to read the Testament.	Reading Monosyllables.	Under 13 Years of Age.
70	52	About 30	About 30

In a flourishing Sunday school connected with a National school, out of 35 working lads, (potters), there were 14 of those under 14 years of age who could not read the Testament.

From the little I have seen of them, I should infer that Sunday schools are of little use in grounding the very ignorant or very young in the elements of knowledge, though they are of great use in keeping up familiarity with religious truth in those who have had no previous training. Even to the very ignorant the Sunday school does some good. I never questioned a working lad in the night schools who could not say the Lord's Prayer. This is partly due to the mother's influence, but in some degree also to the teaching of the Sunday school.

6. Your evidence shows a defective state of education in the district; do you wish to express any views as to the means by which this evil might be remedied?

6. Yes; by Parliament extending to the children in the Potteries the same law which already regulates the employment of children in mills and in bleaching and dyeing works; I mean the short-time regulations of the Factory Act.

The advantages of the system in an educational point of view have been noticed by Mr. Kennedy, Mr. Leonard Horner, Mr. Baker, and others who have had ample opportunities of judging of the results. These advantages are—

1. The regularity of attendance at school which it secures.

2. The fact that under this system the children are kept till they have attained a greater age at school.

The results of good teaching on the half-time system may be seen as well at Bollington and Bollington Cross in Cheshire, as at any other place I am acquainted with. Out of 31 children in the upper classes at Bollington Cross whom I examined the other day, all, with the exception of about four, were half-time scholars; they were most intelligent; the boys were working sums in practice and in proportion; the girls more advanced in arithmetic than is usual in girls' schools. They were full of life and heartiness, though both they and in most cases their parents had been thrown out of work for the last month.

The effect of the short-time system on the children as workers may be judged of by the opinions of certain eminent manufacturers quoted in a statement I made to the chamber of commerce at Stoke. The chief reasons for recommending half-time education for children in the Potteries is one that, as inspector of schools, I am not directly concerned with: I mean this,—that it is only on the short-time plan that any sufficient remedy can, as I believe, be applied to the physical evils from which the population of this district suffers.

7. Have you considered any other plan by which the legislature might interfere to remedy the evil you mention?

7. When I brought the subject before the manufacturers at a meeting at which Mr. Adderley presided, in December last, a proposal was made that no children should be allowed to work till they are 10 years of age; that after that a certificate that the child could read and write should be required as a condition of his being employed until he had reached his twelfth year. Practically such a plan, if actually put in force, would have the effect of keeping many children out of the works till they are 11. Great credit is due to the manufacturers who were willing to make such a sacrifice for the sake of education; but on making inquiry I have come to the conclusion that a law enforcing this would do very little for education. It is a question, too, whether it would not be too great a sacrifice for many parents to make, and one which Parliament would hardly be justified in requiring, to keep their children from working till they can read and write. Simply to forbid the employment of children till they are 10 years of age, would be, speaking generally, to leave the evils that result from the present system of child labour almost unmitigated, and perhaps add others. It is, I am assured by the experienced surgeon of North Staffordshire Infirmary, the present long hours of work in a close atmosphere that helps to develop the diseases so prevalent among potters, to stunt the growth of the children, and prevent their acquiring that strength and development without which they cannot resist the evil effects of their trade in their after-life. I am informed by persons competent to pass an opinion, that the atmosphere in which mould runners and some others work is quite as trying to the health as that in which mill children work, whose hours of labour have been restricted. Certainly the skeining rooms connected with the dyeing works in which children are only allowed to work half the day are airy and healthy compared with the rooms in which children in the Potteries are employed for 10 or 11 hours.

8. Are you aware of any objections which have been raised to the introduction of the half-time system into the pottery trade? If so, what is your opinion as to their value.

8. Yes; and I have made all the inquiries I could to see how far they are valid objections. I am not inclined to attribute much force to any except that which relates to the difficulty of obtaining a sufficient number of children for the relays. Yet I suppose there never was a demand for labour that did not meet with its supply continually. Some extra expense might be incurred at first, but I have been told by practical men that manufacturers might well combine to raise the price of much of their ware. The irregular way in which some of the operatives work has been urged as an objection. But if half-time regulations for the children were a means of introducing

system and regularity where they have been wanting, and affording employers a plea for enforcing regularity, would they not on that very ground be a benefit? Possibly a gradual introduction of the half-time system might be advisable. There might be a law requiring half-day schooling for children under 11 or 12, with a provision that in three or four years' time the same rule should apply to children under 13 or 14. But as a permanent arrangement the Silk Works Act would be very unsatisfactory. With regard to the girls at Leek and Macclesfield, it appears to do little good. At Leek there are no children at school under the Act at all that I am aware of.

9. You have, I believe, on different occasions brought this subject under the consideration of employers and others connected with the trade; what were the general views and feelings which they impressed?

9. Yes, I have brought the matter before a meeting of the manufacturers on two separate occasions, first at a meeting at which Mr. Adderley presided, when a memorial to the Home Secretary expressing an opinion in favour of some restriction on the employment of children was agreed to. Secondly, at a meeting of the Chamber of Commerce, when the result of some inquiries that I had been making with regard to the working of different Acts of Parliament that restrict the employment of children was brought before the meeting.

I was unable on these occasions to elicit any unanimous or decisive opinion on the subject. One or two leading manufacturers have stated publicly that the half-time is practicable, though they saw difficulties in the way. Some whom I have seen privately have allowed that these difficulties could be surmounted. The majority of the manufacturers, though anxious that something should be done to improve the state of the children, object to the half-time plan. The fact is, that few of them have that practical acquaintance with the state of education in the district, or have had their attention directed to the physical state of the people in such a way as to make them see the necessity of greatly shortening the hours of children's labour. At the same time the majority of the manufacturers are so kindly disposed, that I doubt their opposing any measure if they could be brought to feel the urgent need of it. At the meeting of the foremen and workpeople which you were kind enough to attend, several, as you will remember, spoke strongly in favour of protection being extended to the children, though many urged objections to the half-time system.

H. R. Sandford.

EVIDENCE OF CLERGYMEN, SCHOOLMASTERS, &c.

Rev. Sir Lovelace Stamer, rector of Stoke-on-Trent.—I have been four years and a half rector of this parish. I have four day schools, in which there are 750 children in daily attendance. I have also two night schools, having an average attendance of 115. My schools are quite full, and could not contain more without considerable additions to the buildings. There are no other public day schools in this town except the Roman Catholic school. As rural dean, I have inspected nearly all the Church schools in the pottery district, and know that the school accommodation in this district is very inadequate for the population. My firm conviction is, that if this was remedied, and every parish was provided with good schools for boys, girls, and infants, with good teachers, there would be every disposition on the part of the parents to send their children to them, and to keep them there for one or two years longer than they do at present, in preference to sending them into the manufactories. Speaking for my own parish, I believe that there is a strong feeling growing amongst parents as to the marketable value of education. With regard to the physical condition of the children attending my schools, I should say that it is good. It never struck me that they looked ill. On the other hand, I know that among their parents and others who have been employed in the pottery manufactories from an early age, there is a great prevalence of consumption and asthma. All the children who attend my night schools have been at work in the day, nearly all in the pottery manufactories. Some of them are as young as 12; some younger than that; and some of 17 or 18. I do not think that the employment of the younger children in the day materially interferes with their powers of learning during the hours of school, *i.e.*, from 7 p.m. to 8½ p.m. I have never been struck with any appearance of exhaustion from overwork. With regard to the interference of the legislature to restrict the employment of children in the pottery manufactories, I am of opinion that, unless the medical evidence goes to show that a very decided injury is inflicted on the constitutions of the children by their early employment, there is no other very urgent cause for legislation. Of the two restrictions proposed, viz., the half-time system of the Factory Acts, and the prohibition of all employment of children under 10, I believe the latter would secure most of the advantages required, and be more generally acceptable to both masters and parents. The dirty employment in which the boys are engaged in the pottery manufacture renders them much less fit for passing from work to school, or school to work, than is the case with the children employed in the cotton mills, who can readily do this without a change of clothes.

Thomas Griffin, clerk to the Board of Guardians of the parish of Stoke-on-Trent.—I have been 26 years in office. I consider that the operatives employed in the pottery manufactories constitute two-thirds of the labouring population of the parish. We have lately had a considerable influx of miners and other workmen employed in the iron trade. I consider the potters, as a class, superior to the miners. They get higher wages. I should say that in no manufacturing district are the houses of the operatives kept in better order than those of the potters, nor, perhaps, where the children are better educated, but at the same time I think that the children are taken much too early to work. I consider that the practice of employing the children at so early an age is very injurious to them, both physically and morally. I think this early work is the cause of consumption and chest affections, which would not be so prevalent as they are now if the children were not worked so young. Children often go to work at 8 years of age, but not before that, at least to my knowledge. I do not think that there has been any improvement as to this practice during my experience. Pauperism is quite as prevalent among the potters as among the other classes of labourers in the district, in a great measure arising through sickness. It has not increased in proportion to the population, but at the present time there is much distress, owing to the loss of the American market. The pottery trade is subject to fluctuations, but for the last two or three years the employment has been very regular. The wages of the operatives are fixed for the ensuing year at Martinmas, and as they generally work piecework, in bad times when the orders are scarce, of course the work is diminished, and consequently the earnings of all classes of workmen. I think the loan societies are a great evil to the workmen. There are many instances in the relieving officer's books where the wives and families of potters have become chargeable on account of the men having to go to prison for not paying their instalments as sureties. They are not a provident class, though there are cases where some of them, by saving their wages, have become owners of houses with land and greenhouses attached. These would not be confined to any particular branch. I think there are painters, gilders, throwers, turners, and platemakers

The Pottery Manufacture.

Mr. F. D. Longe.

who are in this position. I think it would be an exception for a potter not to be able to read and write. They must have acquired it chiefly at the Sunday schools. There is a great deal of drunkenness in the streets, though I do not think it is worse than in other extensive manufacturing districts. I do not think the earnings of children under 10 are of any good to their parents. I think no children should be allowed to work at all under 10. Most of the children employed are working under their parents. I know of no case where children were subjected to ill-treatment by the workmen under whom they worked. It is very rare to see a child crippled in the district, but I do think that the early work in hot rooms is the cause of a premature old age. The evil effects of this early work are apparent in the children's faces.

Mr. Josiah Dimmock, timber merchant, Stoke-on-Trent.—I think the habits of the potters have been improved very much during the last 30 years. There is less drunkenness among them now than there was. I do not consider that the children employed in the pottery trade are unhealthy. The country here is very elevated, and the soil is clay, which may account for much of the consumption which one hears of. The potters' wages are high, and they live well, and that helps them to live long. Except in the case of the dippers, I never heard of children or young persons being injured.

I think, without doubt, that the potters, as a class, are superior to other classes of labouring people or manufacturers, for instance, the iron-men, or the people employed in the cotton manufactories.

Mr. John Hughes Sweeting, chief superintendent of the pottery district of the Staffordshire Constabulary Police Office, Stoke-on-Trent.—I have held this office 17 years and upwards. I have also been superintendent of police at Birmingham. Before that I was a serjeant of police in London. I consider that the potters, as a class, as compared with other classes of operatives whose habits and behaviour I have had opportunities of witnessing, are well conducted. I consider that the potters have very greatly improved during the last 15 years. There has been a very great diminution in crime in this district notwithstanding the increase of population. The number of cases of felony, even of the lowest kind, is much smaller now than it used to be. Even the iron puddlers, who used to be a very bad class in our district, are now rising to the level of the others. I would not say that there is now much difference between either the iron-men, the colliers, or the potters. When I first came here, I had several cases of potters being concerned in burglaries and highway robberies. There were gangs connected with each other through the whole district of the Potteries. Now there is nothing of the gang system at all. We seldom now have a heavy case at all from any class. There is not much drunkenness among the potters, particularly in bad times like the present. I have observed also that crime is less in bad times than good, owing to the fact that there are fewer drunken men to be robbed.

Rev. W. Ford, M.A., Wood Street, Longton.—I have been 23 years in this town. I have always found the people well behaved, and I should wish to speak well of them. They are a very independent people. In point of education the town is decidedly below par. I have always had my schools well attended. The people are always very ready to subscribe to schools, more than perhaps anything else. There are plenty of schools in the place, but they are not properly attended. I attribute this to the children being sent to work too soon. The beer shops have multiplied fivefold since I have been here. It is in these places where the parents spend the money which they otherwise might use for the benefit of their children. The Sunday schools in the place are very well attended. There are a few private night schools. My night school has not been successful.

Mr. Thomas Blair, town surveyor, Longton.—I have resided 20 years in this neighbourhood. Most of the manufacturers in Longton have been working men themselves. In all cases where new manufactories are built great attention is paid to the convenience of the workpeople and to the ventilation of the shops. I know of seven new manufactories which have been built on an improved system. Several of those also which have been built within the last seven or eight years are good. I think that, generally speaking, our manufacturers take a good deal of interest in the management of their works. The town has much improved during the last eight or ten years. It was very bad 10 or 15 years ago. The rental of the houses in which the workpeople live average from 1*s.* 10*d.* to 2*s.* 8*d.* per week. The occupiers pay their rates. There are a great number of Irish in the town. I have heard the superintendent of police say that there is less crime from Longton than from any other place of the same size in the neighbourhood.

Rev. Samuel Jones, Independent minister, Caroline Street.—Education is certainly very low in Longton. I think that generally the morals of the people are also low. Sunday schools certainly do much, but not so much as is required. The boys at our day schools are not retained beyond 10 on the average. In the Sunday schools the teachers are not sufficiently educated themselves. I think that there has been a great improvement in Longton in the last few years, but still education is much too low. What we want is a higher class of teachers. I think that if we had better teachers, we should have more scholars. There is a good deal of drunkenness in the place. The lower class is larger in proportion to the middle class than in Hanley. I think that in many ways a law preventing children working under 10 would be good; but at the same time I think that there are families so extremely poor that it would be almost a hardship upon them to deprive them of the wages, though little, which the children under 10 might get.

Mr. J. Astbury, master of the Church school, Longton.—It is certainly my opinion that we have more scholars when trade is good than when trade is bad, as at the present time. The attendance at my school did not average 60 during last winter; it generally averages 70 in the winter. We have had as many as 100. Since the Wesleyan school has opened we have never had 100. So when the New Connexion school opened they took our scholars away. From August to Christmas is the best time for the attendance of scholars. I think that the parents keep their children away from school in the summer time, partly because they like to have them playing in the open air, while the air is warm, and partly because in the earlier part of the year they are saving their money in order to buy clothes for themselves and their children for the Stoke wakes. After the wakes, the children, being better clothed, come to school.

Mr. Newbury, master of the Independent day school, Commerce Street, Longton.—I have now (June) about 60 boys attending my school. Two years ago I had from 80 to 100. When we began, the school was supported by subscriptions; that school was given up. We now charge 1*s.*, 9*d.*, 6*d.* and 4*d.* per week for boys and girls, according to the education we give them. When I charged only 4*d.* or 3*d.* I had double the number of scholars. It is very difficult to keep boys at night schools. I have known them have money given them to pay their schooling, and spend it and not come. It is quite impossible for a person to gain a livelihood by taking scholars at 4*d.* per week; he would have to have so many that he could not teach them. This used to be the largest day school in the town, but when cheap schools were established by Government aid, the number of our scholars was reduced.

N.B. In the 1*s.* class in this school there was one potter's son and four tradesmen's sons.
In the 9*d.* class, three out of six were potters' sons.
In the 6*d.* class 16 out of 37 were potters' sons.

Mr. Benjamin Prowse, master of the Wesleyan day school, Stafford Street, Longton.—(N.B. This school is in receipt of Government assistance). We have 250 boys and girls on our books, and 210 in attendance. This is our average number. We are going to enlarge our school. Our prices are 6*d.*, 4*d.* and 2*d.* The attendance is very irregular. The last winter many potters have not been able to send their children to school, owing to the depression of trade.

1st Class, 6*d.*—Number in attendance, 39.

Children of coalmasters, manufacturers, and other members of a superior class	11
Children of tradesmen	17
Children of working potters	11

2nd Class, 4*d.*—Number in attendance, 42.

Children of coalmasters, &c.	9
Children of tradesmen, &c.	12
Children of working potters	17
Children of other working parents	4

3rd Class, 2*d.*—Number in attendance, 43.

Children of working potters	14

MESSRS. ASHWELL'S COAL PIT, LONGTON.

Joseph Booth, overlooker.—We have only four children down this pit. They are about 14. Three of them are the children of a slipmaker. Their ages are 14, 15, and 17. The one of 14 can get 10*s.* a week. I know that some of the potters will send their children down the pit as soon as they are big enough to earn good wages. Some children who go down can only earn 5*s.* or 6*s.* They would be children between 10 and 12 years old. We never have any difficulty in getting children. One of our boys, who is not much over 14, is earning 2*s.* 2*d.* per day, or 13*s.* a week. There has been a rise in children's wages. None in men's wages for the last five years. They have been reduced 6*d.* a day during the last three years. As a rule, parents prefer sending their children to the pots than down the pit. If they can afford they apprentice them. Some will leave the pots when they get big, and go down the pits. There are many lads employed in the pits which are worked by buttymen. The bütty system always leads to the employment of lads.

The Rev. G. F. Whidborne, Hanley.—I should be very desirous to see any measures carried out which would release the children from their work either wholly or during part of the time, and so give them the opportunity of receiving the benefits of education. For although we may not be able to insure the children going to school when they are prevented going to work, yet it is clear that while they are employed in the manufactories they cannot go to school. There are three day schools connected with my church in Hanley. There are five other churches, which also have one or more schools connected with them. In bad times our schools are smaller in numbers, because the poorer parents cannot afford to send their children, but better as to the age of those who do come, they being the children of parents better off, who cannot get them into work, and therefore send them to school. The two night schools, called ragged schools, thrive amazingly.

Mr. George Rogers, master of the National school, Shelton.—I have been here one year and six months. Before that I was master at St. Peter's schools, Hallliwell, Bolton, for two years. I was also a National schoolmaster in South Wales for seven years. Comparing the attendance of children at school at the different places where I have been engaged as a master, I consider that, in proportion to the population, the number of children attending the schools of this town is very much smaller than in others. My own school is quite full at the present time. When I came it was only half full. There are six National schools in Hanley and Shelton. There is one British school at Etruria. There are five denominational schools of some size in the same district. I cannot say what number of the schools are not full. I know Bethesda school is not full. There are 170 scholars in that school. The majority of the children in my school are the children of potters. The colliers and ironmen's children generally go to Lord Granville's schools. I should say two-thirds of my children are potters' children. We have now 11 children of potters, of 11 or 12 years old; the rest would be between 11 and 6 years of age. But the evil is that the numbers of these children fluctuate, as the demand for them is greater or less. They will come for some weeks or some months, then go for some weeks or months, and then come back again. Their proficiency is generally speaking in proportion to their attendance. I consider that the children of potters, who attend regularly, are rather slower than the children of the Lancashire manufacturers. With regard to the children who go to work and then come to school, I have observed them looking paler than others. I am not aware of any cases where children have been injured by their work. Our night schools are confined to children who have been at work in the day-time. We take none under 7 in these schools. The children who attend these night schools get on extremely well in many cases. All do who attend regularly. There would be about 180 children in these two schools. There are several other night schools in the town. I never met with a child actually suffering from his employment, nor should I expect to find such a case, although the general effect of their labour upon their health may be injurious; and I should think the ill effects would appear in after-life, I should think that cases where boys have been injured in the neck or spine from carrying heavy weights would not be of frequent occurrence, or I should remember having met with such a case.

Mr. Edward Chell, master of Hanley National school.—I have been master of this school 35 years, and superintendent of the North Staffordshire Schoolmasters' Association for 20 years. During the time I have been master I have admitted about 8,000 boys. I gave evidence on the occasion of the former Children's Employment Commission to Mr. Scriven. I have now heard read my former statements. I say that education in this neighbourhood has advanced, and that the moral conduct and behaviour of children has improved, but still I consider that the children are greatly deprived of the advantages of education from the very early age at which they are admitted into the factories. About three years ago I examined individually the children at work in several manufactories, and I found that three-fourths of the boys could not answer intelligently any questions I put, nor could they read perfectly a sentence in the New Testament. A great portion of these boys did not average more than 8 years old. I am not aware of any check having been put to this employment of very young children. I consider that one great cause of children being employed so young is the system of early marriages so prevalent in the Potteries. The habit of attending places of religious worship has increased among the potters. The result of these early marriages is that a large family of small children are driven to work to enable their parents to get the common necessaries of life. Many parents accordingly are satisfied with the education which their children merely pick up at Sunday schools. I consider, from my own experience, that the best remedy is a well-taught night school. I consider that the constitutions of children are very materially impaired by the change from the hot atmosphere of the rooms they work in to the open air. I consider this is the cause of the consumption which is so prevalent in the Potteries. It predisposes the children to it. I have had several instances of boys in my school dying of consumption, which they have inherited from their parents. There is a great deal of drinking among the young potters. I attribute this to the want of more rational amusement after their long hours of confinement, and to the competition among the beer houses which are so numerous, and which vie with each other in offering temptations

The Pottery Manufacture.

Mr. F. D. Longe.

to these young men. At the present time my school is full. There are about 200 scholars attending it now. During the last three years that number has not much varied. It has done so a little, owing to the additional National schools which have been lately established in the neighbourhood. Within the last two years four additional private schools, which would be attended by potters' and small tradesmen's children, have been established within the immediate neighbourhood of my own school. I consider that of all the efforts that can be made to improve the condition of the children, nothing can equal a practical working night school. The difficulty is to get proper working masters for them. I do not think that the half-time system could be carried out in the Potteries. I think if the hours of work could be curtailed, and then that the children should go to a night school, say three nights a week, for an hour and a half, with a good master, it would be enough. The children are employed by the men, and not by the masters, and the masters could not prevent the men evading the law. Nearly all the boys who have remained some time in the higher class in my school have got into situations as clerks or warehousemen.

Mr. William Glass, master of the Borough ragged school, Chapel Fields, Hanley.—I have kept this school 11 years. It is open four days in the week from 7 p.m. to 9 p.m. My average attendance in the winter time has been from 70 to 80. The boys attending my school are of 8 years of age and upwards. The majority are over 12. There are generally about 25 under 12. In almost every case the boys who come here have been at work in the daytime. The boys under 12 generally come here in high spirits, and go out in the same state. Nearly all the boys are employed in the pottery manufactories; they are chiefly mould runners and jigger turners. I never attribute their want of attention to their having been worked in the daytime. I know that the boys of 8 or 9 who work in the day, if they did not come here, would play about the streets until bedtime. I think that they are far better here. I am quite sure that they are not too tired to learn. The cases where they go to sleep are very exceptional indeed. The boys who come here are the children of very poor parents. I do not attempt to worry the little boys with difficult subjects of learning, but the simple education they are receiving now renders them much more able to learn other things when they are 14 or 15 years old.

Mr. Samuel Cole, superintendent of the police of Hanley, Police Office, Hanley.—I have been in office here over 18 years. I think that we have fewer cases of riotous conduct in the streets, caused by drunkenness in this town, than would be expected from the number of our population. Between Saturday and Monday morning we average about five men locked up for being drunk or drunk and disorderly; of these five, three would be men employed at the ironworks or colliers. Potters are decidedly well-behaved men, and there is much less drunkenness among them than there was a few years ago. We very rarely indeed have a case of housebreaking. We hardly average two cases of felony of any kind in the week. A potter is but seldom brought up for stealing; they are decidedly an honest class of men. They have been in distress the last 18 months, and they have been in many cases selling all their furniture. Magistrates and others have expressed surprise that there have not been more cases of larceny brought before them. I think there can be but one opinion as to the potters being an honest class. They are improvident, but decidedly honest.

Mr. Joseph Lowndes, clerk to the Guardians of the Wolstanton and Burslem Union.—I have been 30 years in office. There has been a decided improvement in the potters as to pauperism within the last 20 years. I attribute that very much to the Poor Law Act. I have no doubt that in many cases the children's earnings are used properly, and help the parents to abstain from application to the parish, but at the same time I should say that in many cases their little earnings are absorbed by the improvidence and extravagance of their parents. When all the family are in work, they will still be wanting money towards the end of the week. The system of borrowing money for holiday making keeps them poor all the year round.

I do not observe that the children are injured by their work; their hours of work are not so long as to cause injury. The mould runners are worked very hard, and are exposed to sudden changes of great heat and cold. The dipping house is injurious. We have now several cases of men who are either in the workhouse or receiving parish relief, who are permanently suffering from paralysis caused by the glaze. One of these men has been in the workhouse ever since 1840. We have four out-door relief cases of this kind.

I am connected with a Sunday school. These schools are well attended. The majority of the children who appear in rags while at work, come in better clothes to school on Sunday. There are exceptions, and latterly I have observed the children are not so well dressed. Every church and chapel has a Sunday school in connexion with it. They have been increased lately. In the Burslem Sunday schools there are upwards of 1,100. These schools are in addition to the six day schools. There are also ragged and night schools in the town.

The boys of 8 to 12 are nearly all employed in the pottery trade. In fact, of late there has been a want of boys, so that Irish children have been taken into this work, whereas formerly the men were so prejudiced against them that they would not take them. I do not think that a double number of boys between 8 and 13 could be got. When trade is good it is quite a rare thing for a boy of 10 not to be in employment. The guardians think it indicates something wrong on the part of their parents if boys of 10 years of age are not in work.

Mr. Elijah Jones, valuer, Hanley.—I served an apprenticeship to a branch of the potting business; was also a manufacturer between 20 and 30 years, and since then for a number of years have been almost entirely engaged in valuations and agencies in connexion with the trade of this district; and from day to day the state of the working potters, men, women, and children, passes under my notice.

The chief evils affecting the working potters, both children and adults, is the want of proper arrangements in the workshops and an effectual ventilation of the same. There is an unnecessary exposure to high temperatures in close drying stoves and dusty rooms.

I see sometimes a number of human beings pent up together, breathing over and over the same polluted atmosphere, and unfortunately they themselves unconscious of the great damage it is doing them; thus are produced asthma and other diseases in early life, and the poor sufferers may even in some cases linger on a number of years, groaning under a burden of pain and sorrow.

The present race of working potters is, in my judgment, much deteriorated and very short-lived, and were it not for frequent importations from country districts, these effects would be still more visible, and the race, if not thus recruited, would become extinct.

Both the men and women seem quite afraid of the atmosphere, and I often see cases where ventilation has to some extent been provided, but vents provided for the escape of foul air have been stopped up from a mistaken idea of the workmen themselves.

I often see a father of a family, a plate or saucer maker, have with him several of his children, girls as well as boys, from 8 to 10 years old, running in and out of the burning stoves until the sweat literally pours down their bodies, and the poor things become emaciated and enfeebled for life.

These stoves have been endured too long; what numbers they have sent to an early grave! They are a disgrace to the district and the present age. I

The Pottery Manufacture.

Mr. F. D. Longe.

am quite sure the drying processes might be effected without all this damage to the workpeople, and also at a saving as to fuel to the employer.

I would observe here that the need of ventilation is not confined to the potters' workshops, but in the finishing departments, where large numbers of men and women and boys and girls are employed, such as enamellers, gilders, burnishers, printers, and transferrers, there is the same defect.

I may here observe that the system of half-time, requiring children under 13 to be employed only six hours a day, and to go to school the other half day, or to work 10 hours on alternate days or alternate weeks, would call for double the number of children, and I think would interfere in many cases with their aptitude for the work they have to do. A sufficient number of children could not be found to carry out this plan, for I am told, bad as times are now, and although there are so many children from 7 to 14 begging in the streets, yet the plate and saucer makers, &c., find a difficulty in getting "*mould runners.*" I do think at the same time if some compulsory enactment of that kind were made, it would be almost certain to lead to the adoption of some improvements in the drying process, so as to make the work of the attendants upon the plate and saucer makers less injurious.

In conclusion, I observe that I have not much hope of any good plan being adopted generally without legislative interference, and that it is imperative something should be done to end this shocking system of permanently damaging these poor children, and also that all workshops should be made suitable for human beings to labour in without injury to their health.

Glasgow Pottery, Stafford Street, Glasgow.

Potteries out of Staffordshire.

Glasgow.

Mr. M. P. Bell.—We have applied steam power to turn 14 platemakers' jiggers, we have only had them in working for one month. We had no opposition from our workmen. We deduct 3*s.* from the men's wages for the wages of the jigger boy. The jigger boys are entirely dispensed with by this machinery. We do not use any other steam machinery in the pottery manufacture. A reduction in the price of ware would not increase the demand, as in the case of calico, and many other things, *i. e.* not at all to the same extent. The demand for crockery is necessarily less expansive. We can always get plenty of children, both boys and girls. There are always plenty of poor people about who want to get employment for their children.

We used to use some machinery for making cups and bowls, but we discontinued using it; we now use a machine for making jelly cans. We employ one man and two boys. This machine is not worked by steam power. The things which are made by this machine would otherwise be made by the thrower. The thrower would make them faster, but they would require more turning. If steam power was applied to the machine it would dispense with the boy.

Our works were built in 1842, our men work regularly every day. They work as long on Mondays as on other days. Our works are regularly closed at 6½ p.m., except on Saturdays, when the men leave off at 2 p.m. On very rare occasions we have our men work 2 or 3 hours extra. We have a sick club among our men; nearly all the potters belong to it; they pay 13*s.* a year, they got a dividend of 9*s.* last year. We pay 3*l.* on the death of one of the members. We have had this club for 19 years. For the last seven or eight years the dividend has averaged 9*s.* We pay wages once a fortnight, on Friday. The men always work on the Saturday after the wages are paid, just as regularly as on other days. I think the practice of paying wages every fortnight is better than paying them every week. I think they spend less in drink. As a general rule they get their things on trust for the fortnight. The law here arrests the wages in the hands of the master to pay the tradesmen. From my own experience I can say conscientiously that the potting trade is as healthy as any other work; I mean, provided that the shops in which the men work are good, and the men keep regular hours, and have regular habits.

With regard to the half-time system, as it is we have more boys than we want for apprentices, we choose our apprentices from the boys working in our works, and the others leave for other work that they can get. Supposing the number of children was doubled, we should have to turn off more than double the number of children that we do now, when they get to 13 or 14 years of age. The effect of this would be that all those children would have to seek for employment in other trades, in which they would have to begin to learn the work, and so not be able to earn full wages, *i. e.*, not such wages as they would have been able to get if they had been in the work before, and they would find it difficult to get into other trades as other boys would have filled up the situations. Nor do I think it would be at all easy to get the double number of boys. There are so many works here now in which boys are employed. We certainly could not get enough boys for our work over 13. Boys of 13 get 5*s.* and 6*s.* a week. 18 years ago boys only cost 2*s.* 6*d.* who now get 5*s.*

As far as our business is concerned we should not object to a law which prohibited children working under 10 years of age. But I do not see how it would be practicable for children to work fewer hours than the men. Our dinner hour is at 2, so that on the half-time system, the child who came in the morning would work from 6 to 2, and the child who came in the afternoon would only have from 3 to 6.

William M'Laughlan, manager at Messrs. Bell's Pottery.—I have been 18 years in these works. The mould runners are generally a hardy set of lads. I never knew of a case of a mould runner suffering in any way from the heat of the stove. Before the flatpressers had their jigger boys, they used to give up very soon; but now that they have a boy to turn the jigger for them, they are no longer so hard worked. I can only recollect the cases of two men since I have been here, who have suffered from either asthma or any other disease of that kind. Our shops are large and high. I never knew of any one being injured by the dipping tub, in these works; we do use lead in the glaze.

Peter M'Guire, mould runner.—I am about 14 years of age. I wedge clay and run moulds. I have worked three years. I used to work in the glass works about a year ago. I had inflammation on the lungs then. The glass works are hotter than the pots. I got 4*s.* a week there, I now get 5*s.* I cannot read. I do'nt know how many score plates I run in the day. I know how many a score is. I do not know where England is. I never went to school. I have no father or mother. I have two brothers grown up. They work here. I come at 6. I sweep the stove and light the fire. I go away at 6½. I always come at 6 on Monday. On Friday I go away at 6; on Saturday at 2. I never worked later than 6½ in these works. I get my breakfast at 9. I have an hour for breakfast. I get my dinner at 2. Have another hour for dinner. My wages are always paid to me.

Hugh Bush.—I am 12 years old. I have been four months at this work. I run moulds. (Reads question in paper and answers it). We have from 9 to 10 for breakfast; and from 2 to 3 for dinner. I come at 6, and go away at 6½, on Fridays at 6 on Saturdays at 2. I get 3*s.* a week.

The Pottery Manufacture.

Glasgow.

Mr. F. D. Longe.

Francis Monro, hollow-ware presser.—I know of three or four hollow pressers who died from some disease of the chest. They were between 40 and 50. These were not in these works. I have only been here 12 months. I have been a potter 15 years. We generally think the cause of the disease is the flint dust which gets into the lungs.

Robert Gordon, hollow-ware presser.—I have worked 14 years and 6 months. I run moulds 6 months. I never knew of more than two cases in these works where men have suffered from asthma. I worked four years at Greenock. I never heard of any potter there suffering from asthma or lung disease. I have heard it said that our trade is very unhealthy, but I have not found it to be so myself.

James Aitken, hollow-ware presser.—I have been a presser 12 years. I used to run moulds and make cockspurs for six years before that. I have never suffered from my work. I was about nine years old when I began. I never suffered from mould running.

Robert Milburn, hollow-ware presser.—I have been 19 years and a half at this work. I have been in these works the whole time. Potters are liable to asthma and colds. The shops are hot, and if the men are not careful they must catch cold. In my time I can only recollect two cases of men dying from asthma or any other disease connected with their work.

James Bosworth.—I have been a platemaker 33 years. I run moulds for 7 years. I began at Cobridge in Staffordshire. I have always enjoyed very good health myself. I have seven brothers platemakers in Staffordshire; and they have all enjoyed good health. I do not know of any platemakers in these works who have died since I have been here. There is a good deal of heat in the shops. I am in the Foresters' sick society. The work here is regularly from 6 to 6½.

Richard Fotheringham, dipper.—I have been 10 years a dipper. I work regularly 10 hours a day at the tub, my hands are in the glaze pretty well all that time. I never felt any evil effects from it. I do not think the lead is injurious. I always wash my hands before dinner, but not because I think the lead is hurtful. I like to have my hands clean before I eat.

Mr. Thomson's, Armfield Pottery, Gallogate, Glasgow.

Thomas Blackburn, manager.—I can give you the number of men working on these works, who have died at an early age during the fifteen years I have been manager here.

	Age.	Disease.
1. Platemaker	48	Lung disease.
2. Slipman	50	Ditto.
3. Handler	48	Debility.
4. Hollow-ware presser	40	Lung disease.
5. Handler	30	Consumption.
6. Kilnman } brothers	20	Ditto (hereditary).
7. Ditto }	26	Ditto, Ditto.
8. Looker to ware	25	Cold and fever.
9. Cupmaker	40	Asthma.
10. Ditto	30	Ditto.
11. Ditto	48	Ditto.
12. Ditto	40	Cold and Fever.
13. Hollow-ware presser	29	Lung disease.
14. Ditto	48	Ditto.
15. Platemaker	43	Ditto.
16. Ditto	45	Ditto.
17. Ditto	38	Ditto.

Of the other workmen whose deaths I have marked down in my book, some were over 60 years of age, and others died from cholera or typhus fever, or other diseases which were not in any way caused by their work. Throwers are as much injured by their work as other potters, though there is neither much dust nor heat in their shops. I attribute the injurious effects of the work to the constant compression of the chest. I was a thrower. I worked 5 months at throwing some time back, and lost two stone. It was working in a damp shop that hurt me, it was a new building. I think the bad health of the potters is a good deal to be attributed to their habits. They work in the shops and get hot, and then go out into the cold air and stand about without their clothes. We have just the same system of hot stoves here as in Staffordshire. Our platemakers employ three or four boys, generally four. The saucer and cupmakers employ the same number. We have the slip-kiln, and not the hydraulic press. From my experience the slip-kiln work is not unhealthy, although it is so hot. The slip men have not so many hours' work as the potters. We use lead in the glaze; but no dipper has suffered from paralysis at all in these works since I have been here.

James Read, mould runner.—I am 13. I have worked over 2 years. I get 4*s.*; I got 1*s.* 6*d.* at first. I come at 6 and go at 6. I get my breakfast at 9. I go away to breakfast; I generally come back at 9½. We ought to have three-quarters of an hour. I get my dinner at 2. We never have an hour for dinner except the days when we are idle. We are generally idle the last three days of the week. I have never worked after 6. No boys work later than 6 here, except very seldom.

John Campbell, mould runner.—I have worked 4 years. I am going 14. I have stopped away from work twice because I had bad colds. Mother said my cold was caused by my going from the heat into the cold.

James M'Indoe, platemaker.—I have been a platemaker 17 years. I have never suffered from bad health myself. I consider that the work is injurious. I think the sudden heat and cold are bad. Potters generally die about 30 or 40. Very few live beyond that. The doctors do not say exactly what the disease is. I do not think that there are any potters now working here above 40, unless they are turners.

John Monro, hollow-ware presser.—I have worked 14 years. From my experience I think that this is a very unhealthy trade. I do not think that many potters live above 40. I have lived very temperately all my life, and yet I believe if I was to go to a doctor now, he would say I was very bad. I think the flint-dust, and the heat of the stoves are causes of injury. Ventilation would do a great deal of good. I knew one man who always would use a lot of flint-dust, and he died very soon.

James Hume.—I am going 12. I run moulds and wedge clay. I have worked about 3 years here. I never worked before that. I never went to school, except for one month before I came to work. I now go to Sunday school. (Can read a little.) I cannot write. We read a bit of the Bible at school. (Does not know how much 5 times 4 is.) I always go away at 6. We always work regularly from 6 to 6, except on Saturdays, when we give over at 3. I have never stopped away from work because I was bad.

William Primrose.—I am going 13. I have worked a year and a half. I run moulds and wedge clay. Before that I went to school. I was only 3 months at school. (Reads a little.) I go to Sunday evening school—I learn to read there. 3 times 4 is 12 (Does not know how much 6 times 7 are). I never stayed away from work because I had a cold or was bad.

Andrew Ford.—I am going 13. I have been two years and a half at work. I run moulds and turn jigger. I was at school for one year before I came to work. I go to Sunday school now. (Reads a little.)

I cannot write. 6 times 7 are 36; 3 times 6 are 18. I never worked later than a quarter past 6.

James Clarke.—I am going 10. I run moulds and turn jigger. I have worked 6 months. (Reads a little.) I never stopped away because I was ill. I never worked later than 6.

John Divine.—I am going 13. I run moulds and wedge clay. I have worked 4 years altogether; I have worked 3 years here. I worked 1 year in the lucifer match works. (Reads a little.) I was never at school; another boy taught me to read. I never go to night school, because I have to work for my father when I go home. I teaze ropes. We get 6*d.* a stone for the tow—20 lbs. to the stone. I have stopped till 7, but only once.

William Pollock.—I am 11 years old. I have worked 3 years. I have never been to school. (Knows the letters.) Father is teaching me to read. I go to Sunday school. I am learning to read at Sunday school.

James McCan. I am 10 years old. I am an apprentice presser. I have worked one year and a half. I never went to school. (Reads a little; does not know how much 3 times 4 is.) I go to Sunday school now; I learn reading and singing there.

Messrs. Lockhart and Arthur's, Victoria Pottery, Pollockshaws.

William Ramsay, thrower.—I have been a potter 25 years. I began as a painter. I never run moulds. I have never suffered in health from my work. I have only been 2 years in these works. I never heard of any man engaged in any of the potting branches suffering from it. I know three men, throwers, who lived to between 70 and 80. In all my experience I am not aware of one potter being taken off at an early age.

Walter Kage, hollow-ware presser.—I have been a potter 16 years. I know that potters are liable to asthma. I have been here 6 years and a half; during that time none of the pressers here have died, except old men. This is a very healthy spot, we are out in the country and have plenty of air. We always have the room swept at night, not in the morning. A workman's health depends a great deal upon the workshops, and also upon the way he takes care of himself.

Michael McCartherly. I wedge clay for the pressers. I am 15 next January. I have worked 5 years. I turned jigger the first year; I then run moulds and wedged clay. I learnt to read at the night school. I come at 6, and go away at 6. I breakfast at 9, have three-quarters of an hour; dine at 2, have three quarters of an hour. On Saturday we stop at 2. I have never worked after 6. I never stopped away from work more than one day in my life for illness. I have colds sometimes.

Andrew Shaw, slipman.—I have been 33 years at this work. I was 24 years at Bowness. I never knew of more than one potter who died young; he died about 25. The rest of the men were generally healthy. As a proof of this, we had a sick club in the works, to which most of the men belonged, and I know that we often got 6*d.* more at the end of the year than what we had put in.

Messrs. R. Cochrane's Pottery, Tennant Street, Glasgow.

Mr. R. Cochrane, manufacturer.—I have used steam machinery in these works for 6 years. All the jiggers are turned by steam machinery, as well as the throwers' wheels and the turners' lathes. I introduced the steam machinery solely for the purpose of relieving the children and women. It liberates the boys who turn the jiggers, and the women who turn the throwers' wheels, and those who turn the lathes. I find now from experience that this machinery is to my advantage. On the introduction of the machinery I continued to pay the men according to the same rate, but I deducted the average of his three boys' wages in respect of the jigger boy, who was dispensed with. The men all regulate the speed of their wheels themselves; no boys are required for this purpose. I built these works on purpose for the application of machinery. I still have some old works, in which the work is done on the old plan. Those works consist of detached shops, which are not suitable for the introduction of machinery. With the steam machinery men can make more, and so earn more wages than without it. Our platemakers, and cupmakers, only employ two boys as mould runners. With the steam machinery a man can make 60 dozen plates as easily as he could make 50 dozen with the jigger boy. The machinery is all set working at 6 o'clock in the morning, and stopped at 6 o'clock at night. I consider that the men are kept regular by the machinery. We do not use the pugmill, but we have the hydraulic press, which makes the clay very nearly fit for use. We also use the machinery for making cups and bowls; we employ young women at this work. We do not employ children, because we do not think they would be any advantage to us, although we could get them cheaper.

David Quigley.—I have been 5 years a mould runner here. I never worked anywhere else. I come at 5½ or 6; I sweep the stove and light the fire. I go away at 6½. I never stop after 6½. We are turned out then, and the gas put out. One other boy works with me. We work for a cupmaker.

Duncan Neaven, platemaker.—I have been a platemaker 30 years. I ran moulds for 6 years. Mould running is very hard work for one boy, but not for two boys. I never suffered anything myself. I have been in a sick society in Glasgow for 9 years. It is all nonsense about sick societies not taking potters in.

Messrs. T. Fell and Co., Earthenware Manufacturers, St. Peter's Pottery, Newcastle.

Sarah Mackenzie.—I am an apprentice paintress. I am 12 years old and a month. I have worked one year and a half. I cut papers for 6 months. I went to school for 2 years before I came to work. (Can read.) I always come at 6, never before that. I had the same hours of work when I cut papers. Carrying the water was hard work. I generally had to carry 12 pailfulls in the day. I have never been ill since I have been at work. I never knew of any girls staying away because they were ill, neither paintresses nor cutters. I like painting very much, better than cutting papers.

George Robinson, hollow-ware presser.—The potting work is unhealthy. I think the potter is injured both by the dust and by the steam. I think it makes a very great difference whether the shop is ventilated or not. I have noticed the effects of the work on lads after they have been 3 or 4 years in their apprenticeships. I have known of several men who have gone off into consumption. I am 44. I am feeling the effects of the work. My health is getting bad, and my chest is sore. Most hollow-ware pressers suffer from sore chests.

Michael Humphrey, mould runner.—I am 14. I have worked about 6 years. I have never been to school. I can't read. I get 4*s.* 6*d.*

The Pottery Manufacture.

Newcastle.

Mr. F. D. Longe.

John Taff, mould runner.—I am 16. I was 2 years at school. (Can read.) I used to work in a ship yard, but they are slack of work just now. I have only worked a fortnight here. I get 5*s*. I could not get more than that in the ship yard, unless I worked piecework. Some boys of my age who work piecework get 9*s*. a week.

Mr. C. T. Maling's Earthenware Manufactory, Newcastle-on-Tyne.

Mr. C. Maling.—We make cups, bowls, mugs, jars, jugs, and teapots by machinery; we employ women and girls to make them, at wages varying from 3*s*. to 4*s*. 6*d*. per week. We do not employ any boys in making the ware by machinery. The ware we principally make by machinery are jelly cans or jars. We employ girls as mould runners; we employ boys with the jiggerers. The wages of the mould runners and jigger boys are 3*s*. to 4*s*. We substituted steam machinery to turn the jiggers, but we took it down again, because we could not arrange with the platemakers to make the deduction for the jigger boys' wages. The steam machinery would not add to the labour of the man, except that he would have just to regulate the speed of the whirler with his foot, while he could make more plates with it. Probably if he did make more plates he would require another boy to carry off the moulds. Our platemakers use the arm for forming the plate. I believe oval ware and dishes might be made by machinery, if a great number of a particular shape was required. Many kinds of fancy ware, such as jugs, tureens, &c., could not be made by machinery; they would require finishing afterwards. We do not use steam power to turn our lathes. I think the turner would require a woman or girl to carry the ware for him, even if the lathe was turned by steam power. I should have no objection myself to a law which prevented us employing any children under 14 years old. I should employ girls above that age, not boys. We should have no difficulty in getting girls. We could not get boys over 14. The half-time system would not prejudice us.

Messrs. Sewell and Co., Earthenware Manufacturers, St. Anthony's, Newcastle-on-Tyne.

Mr. G. G. Stephenson, manager.—We do not use steam machinery either in the making cups and bowls, or for turning the jigger. The workmen object to machinery, because it would do away with two-thirds of their work. I think the jigger turning is very hard work for children, as well as the mould running. I should be an advocate for the half-time system as far as regards children under 13. There would be no difficulty in getting the double number of children here.

Margaret Cunningham.—I am 12 at Christmas. I have not worked a year yet. I work for my father. I have been to school. I come at 6 and leave at 6. I wedge clay. My father is a muffin maker. One other girl works with me. The clay has been pugged. I have never been ill.

Elizabeth Kindly.—I am going 14. I turn jigger and run moulds. I have worked 2 years. I get 3*s*. 6*d*.

James Cowan.—I am a platemaker. I employ one girl to turn jigger and run moulds. I should have two if I had more work. I should pay 4*s*. I would rather have boys, but I cannot get boys. As soon as they get to 11 or 12 they go into the iron works or ship yards.

Thomas Steel.—I am going 13. I run moulds and turn jigger for a bowl maker. No other boy works with me. The man I work for is making basins. I get 3*s*. 6*d*. I come at 6; I go away at 6. I get my dinner at 12½ to 1½; breakfast 8½ to 9. I always have these times for meals. I go home for breakfast and dinner. I have not been ill for a long time. I go to night school. My father is a labourer in the alkali works. I should like to get into the iron works.

Stockton.

Messrs. Ainsworth's Earthenware Manufactory, Stockton.

James Bentley, assistant to dipper.—I am going 16. I was at school some years before I came to work. (Can read.) Stockton is in the county of Durham. Yorkshire is the next county over the water. I go to night school now.

Roger Hobson, assistant to platemaker.—I am 10 years old. I have worked 1 year. I went to school for about a year before I came to work. (Can read.) 4 times 5 are 20; 5 times 6 are 30. (Writes his name well.)

Annie Baker, assistant to platemaker.—I am going 15. I have worked 7 years here. I have only stayed away twice from my work; once because I had a bad cold. I was at school before I came to work, and go to Sunday school now. (Can read.)

Mary Watney, paper cutter.—I am 11. I have worked a year and a half. I have been to school. (Can read a little.) I go to night school 4 nights a week. I go at 7 o'clock and stop till 8. Some of the girls here go with me. I am learning to read Testament. I am never sleepy at school.

Maria Gibson, paper cutter.—I have worked 2 years. I am 14 years old. I went to day school before I came to work. (Can read.) I have half an hour for breakfast and 1 hour for dinner. I come at 6. I am very happy.

George Featherstone, warehouse boy.—I am 12 years and 9 months old. I have been 2 years in the warehouse, and 1 year I worked for a platemaker. 3 half-crowns are 7*s*. 6*d*.; 5 times 11 are 55. (Can read and write.) I learnt at the blue-coat school before I came to work.

Messrs. Smith's Earthenware Manufactory, Stockton.

Maria Gibson, paper cutter.—I am 9 years old. I have been about 6 months at work. I went to school before I came to work. (Reads a little.) I come at 6; I go away at 7. I go to Sunday school. I can't write.

Annie Bartley.—I am 11. I have worked about 9 months. (Reads a little.) I can't write. I went to school before I came to work. I always go away at 7.

Margaret Strong, assistant to platemaker.—I am going 15. I have been 3½ years in service; I went as a nursemaid. I could read before I went into service; I have forgotten now.

Thomas Barker.—I was 9 last May. I went to school before I came to work. (Can read and write.) I go away from work at 6; sometimes I stop to 7. I don't go to night school, but I always go to Sunday school.

James Bartley, platemaker.—We have a great many girls now, because we cannot get boys enough. I have worked here 11 years. Five years ago no girls were employed in the plate shops. I should not like my girls to be employed at this work; I mean, if I could help it. It is more work for boys. The iron works and ship yards take the boys away now.

Messrs. Scott and Co., Southwick Pottery, Southwick.

William Rain.—I am 12 years and a half old. I have only worked one year. I turn jigger and run moulds. I have been to school. (Can read well.) I get 3*s.* a week.

John Rain (father of last witness).—I have two boys and a girl. I sent my boys to school till they were over 11 years old. I paid 6*d.* a week for each. My girl is a very good scholar. Both boys go to Sunday school now. I did not send them to the National school; I did not think it was a good school.

John Brougham, mould runner.—I am 12. I can't read. I have two brothers. None of us ever went to school. Mother can read. I have worked about 2 months.

Jane McPherson, mould runner.—I can't read. I never went to school. I am going 12. (Cannot read.)

Thomas Bury, dipper's assistant.—I am 11 years old. I have worked 3 years. I never went to school.

William Charles Bolton.—I am going 12. I never went to school. (Can read a little.) I am learning at home; father is teaching me. I get 3*s.* a week.

Messrs. Moore and Co., Wear Pottery, Southwick.

Arthur Burns, mould runner.—I am 13. I have worked 6 months. I was at school before I came to work. (Reads well.) I have never stayed away from work for a cold. I got 4*s.* when I first came to work.

Maryanne Hobbles.—I am 19. I wedge clay and run moulds. I have worked 8 years. I have never been ill from my work.

Maryanne Blackburn.—I turn jigger and wedge clay. I am 13. I have only worked 3 months. I come at 6 and go at 6; I never stop after 6. I sweep up once a week. I have worked nearly 3 years. I never went to a day school; I go to Sunday school. (Cannot read.)

Bertram Wilson, warehouse boy.—I am going 13. I have been 16 months at work. I have been to school. (Cannot read.)

John Sutherland, warehouse boy.—(Reads well.) I was at the British school 4 years.

Mr. Wilson's Earthenware Manufactory, Middlesborough.

R. Blane, manager.—It is very difficult to get boys to work in this manufactory. We have only got 2 apprentices. We cannot keep boys; they all go off into the works at 13 or 14; many before that. Boys of 11 or 12 can get work in the iron works, and this is why our men employ girls instead of boys. Boys would be better if they could get them and keep them. We never have any night work. These works have been established 26 years; they have not been increased. We use steam power for the mill and in the slip-house, and it has been applied to work one "jolly," but the buildings are so inconveniently situated, that it has not been extended to any other shops. All the clay which the potters use is pugged.

Jane Armstrong.—I turn jigger. I am going 12. I have worked 1 year. I come at 6; I go away at 6. Sometimes, but very seldom, I work till 8. I have a mother and a stepfather. I never went to school. I have two brothers who get 3*s.* each. There are no night schools nor Sunday schools. (Not true.)

Anna Cotton, flatpresser's assistant.—I am going 12. I have worked nearly 3 years. I go to Sunday school. (Cannot read.)

James Fell, saucer maker's assistant.—I am 11. I have worked 4 years. I never went to school. I come at 7; sometimes at 6. I go at 6. I never stopped after 6. I get my dinner at 1; have an hour for dinner.

Mary King.—I am going 14. I turn jigger. I never run moulds, nor wedge clay. (Can read.) I went to the British school for 5 years.

Ellen Collins.—I am going 12. I turn jigger.

Messrs. Warburton and Britton, Leeds Pottery, Leeds.

John Myers, manager.—I have been 18 years in these works. From my experience here I do not think the work is injurious to the health; I am sure that the workmen who have died since I have been here have averaged 57 years of age. The total number is about 13. I have seen other works at Sunderland and Swinton. I think our own rooms are dry and airy, though they are old. The management of our works has been much improved since Mr. Britton has had them; before that, the men used to work on Sundays. Children are still employed very young. We always interfere to prevent very young children being employed when they are not the children of the workmen.

William Halden, assistant to thrower.—I am going 11. I have worked 4 months. I take off for an apprentice thrower. I come at 6; I go away at 6; I never come before 6. I have worked a little while after 6; never till 7. I was 2 years at school before I came to work. (Can read.)

Antony Ryan, mould runner.—I am 13. I have worked a year. (Can read.) I come at 6, and go away at 6. I get my dinner at 12; I have an hour for dinner. I have half an hour for tea at 4; I always have this time for tea. I always have half an hour for breakfast at 8½.

John Watson.—I am going 13. I have worked 3 years. I cannot read. I have never been to school. I come at 6, and go away at 6; I never stopped after 6. I get 3*s.* 3*d.* a week. I never stayed away from my work.

Jacob Metcalf.—I was 8 last September. I have only been 2 months at work. I have been to school. (Can read short words.) I go at 6; sometimes before. I never stopped after.

John Redis.—I am going 9. I come at 6; I go away at 6. I have never been to school. I can't read. I have never been unwell since I have been at work.

Joseph Killett, hollow-ware presser.—I have worked 22 years. Since I have been here I have never known of a hollow-ware presser suffering from the effects of his work. I do not know of any man who is suffering from asthma. We never work after 8; and we do not work to 8 more than once a month. We generally begin at 6, and give over at 6.

Mr. McDowall's Earthenware Manufactory, Castleford.

Mr. McDowall.—Most of the boys on my works are more or less educated. I do not allow children to be employed until they are 8 years old. I think the children generally begin at about 8 or 9 years of age. Boys and girls of 9 years of age get about 2*s.* 6*d.* to 3*s.* Our hours of work now are from 7 to 7, but there is not much regularity about the time of leaving. Some go before and some after 7. On

The Pottery Manufacture.
Yorkshire.
Mr. F. D. Longe.

Saturday we break off at 3. I do not think the pottery trade is unhealthy. The iron trade is certainly more unhealthy. I am taking a great deal of trouble about getting the children to go to Sunday schools now. Our population is about 4,500. There are two public schools, and one large private school in the parish.

Eliza Armitage, paper cutter.—I am going 9. I have worked 4 months. I go to school on Sundays. (Cannot read.)

John Patterson, mould runner.—I am going 14. I have worked 9 months. I went to the British school for 2 or 3 years before that. (Reads well.) I come at 6 in the morning, and go away at 7; sometimes I go at 8. I have from 8 to half-past for breakfast, and from 12 to 1 for dinner.

Douglas Patterson, mould runner.—I am going 9. I have only worked a month. I have been 2 or 3 years at school. (Can read.) 5 times 4 are 20; 7 times 9 are 63.

Elizabeth Medil, transferrer.—I am 20 years of age. I have been 10 years at work. I was at school before I came to work. I can read and write. I have never suffered from my work in any way.

Messrs. Nicholson and Hartley, Earthenware Manufactory, Castleford, Yorkshire.

Elizabeth Moon, warehouse girl.—I am going 13. I come at 7, and leave at 6½. I have breakfast at 8½; I have half an hour. I go home to breakfast. I have an hour at 12½ for dinner. (Can read.) I went to the day school before I came to work. I have been 2 years at work.

John Wilson, mould runner.—I am going 11. I have worked about 3 months. I went to school for 2 months before I came to work. I come sometimes at 6, and sometimes at 7. I go away at 6. I never stopped after 6. I wedge clay and run mould. (Cannot read.)

William Marchant, assistant in slip-house.—I am 10 years old. I have only worked a week or two. I have been to school for a year. (Can read and write.) I sift in the slip-house. I come at 6, and go away at 6; sometimes at 7.

Messrs. S. Barker and Son's, Earthenware Manufactory, Swinton, Yorkshire.

Mr. Henry Barker, proprietor.—During the four winter months our hours of work are from 6½ to 6. During this time our workpeople have 20 minutes for breakfast at 8.40, and 40 minutes for dinner at 12.20. In the summer months, the hours are from 6 a.m. to 6 p.m., with half an hour for breakfast and an hour for dinner. Most of the hands have tea in the shops in the afternoon. We always keep the gates locked during the day. We keep a porter on purpose; and the men have to get a pass to go out. We find it a great means for keeping the hands orderly and regular. They can always go when they have done their work, and it has been looked over by the foreman. We put the hands on short time, *i.e.*, 3 days a week, sometimes, when we are slack. They always work very much harder then than when they are working full time. They do so much work to earn wages, that we have to limit the work as well as the days. When working full time, the potters will always take it easy for 2 or 3 days in the week, and then work hard to get their work done by the day on which they are paid. If the hours of work were restricted, of course they would work harder during those hours; and, accordingly, work their children harder too. Although we sometimes work less, we never work more hours than from 6 to 6; except that occasionally some one branch may be employed to 8. When they work to 8, they always have half an hour for tea. The children always get extra wages as well as the workmen, if they work overtime. We have the pugmill, so that the children have no labour in wedging the clay. We could not carry out the half-time or relay system here. We only have boys employed by the platemakers. I should not approve of girls being employed by the platemakers; it would very much increase immorality; and, besides, if the work is at all unfit for boys, it must be much more so for girls. There are glass works here in which boys can get better wages than the potters can give them.

Throwing-machine Shop.

Elizabeth Newill.—I am going 13. I have worked over 2 years. I cannot read. I go to Sunday school. I come at 6. I come at 6½ in winter. I go away at 6. I never stop after 6. I make cans with the "head."

Hannah Green.—I am going 15. I come at 6½. In summer I come at 6. I go away at 6. I get my breakfast at 8½. I get my breakfast here. I have bread and butter and tea for breakfast. Sometimes I have plain bread. I sometimes go home to dinner; sometimes I get it here. I have 40 minutes for dinner. My mother works here. I have worked 3 or 4 years. I have stayed away twice or three times because I was ill. I have stayed 1 or 2 days away because I had a cold. (Can read well.) I learnt to read at a day school. Mother paid 6*s.* 6*d.* a quarter.

N.B.—There were about 6 girls in this shop employed in making jars. They were all over 13 years old.

Walter Hepworth, handler.—I am 13. (Can read.) I learnt at the British school. I have worked 4 years. I go to Sunday school now. I handle cups and mugs. I come at 6½; I go away at 6. I sometimes go away at 5. I used to make handles, now I put them on. I never suffered from making handles. I never had a sore chest.

James Harris, mould runner.—I am going 10. I have worked about 3 years. I get 2*s.* 6*d.* a week. I come at 6. Sometimes I come at 5½; sometimes I do not come before breakfast time. I work for my father. I go to school on Sundays. (Can read a little.)

Messrs. John Jackson and Co., Earthenware Manufactory, Holmes, Yorkshire.

Maryanne Dickinson, warehouse girl.—I am going 15. I have worked 3 years. I have been to school a little. I come about 6. I come at 5 sometimes. One or two mornings in the week I come at 5. I go away at 7; I never stop after. I get my dinner at 12. I have an hour for dinner. I always go home. I have half an hour for breakfast at 8½. I live close by.

Robert Dawson, apprentice platemaker.—I am going 17. I worked one year at Stockton and I have worked two years here. I come at 6; I go away at 7. I never stop much after 7. I have an hour for my dinner at 12. I go home to breakfast and dinner. I have one boy working for me; I give him 3*s.* 6*d.* I have never stayed away from illness. (Can read.) I never went to school before I came to work. I go to Sunday school now.

George Draper.—I was 11 last September. I work for Robert Dawson (last witness). I have worked nearly 3 years. I come at 6, and go away at 7 in the evening. I never stop after 7. I have only stayed away once because I was not well, since I have been at work. (Can read.) Twice 3*s.* 6*d.* is 7*s.*

Mr. G. Hawley, Earthenware Manufactory, Rotherham, Yorkshire.

The Pottery Manufacture. Yorkshire. Mr.F.D.Longe.

Mr. G. Hawley.—It is difficult to get boys for the pottery work. They get into the glass works and iron works very young. Many boys go to work in iron works at 10 or 11. Several girls are employed by the platemakers; they stay better than the boys. We always lock up at 6. We very seldom have any work after that hour. We used to allow our men to work till 7, but we have found that we get more work done by keeping them to 6 o'clock. I should like an absolute rule that children should not work after 6. We have no steam machinery as yet. I have noticed that potters become asthmatical as they get old. Potters are too much given to drinking; our men are however very steady now. At first we had to take men of sorts. Some of our men are from Staffordshire. We have the pugmill, which saves much of the children's labour.

Ann Marrett, paper cutter.—I am going 15. I have not worked a year yet. I never went to school before I came to work; I was at home. I don't know what I was doing at the time. I cannot read. There are 8 of us altogether at home. My father is a collier. I come about 6; I go away at 6. I never stop after 6. I get my breakfast at 8; I get it here. I get my dinner at 12; I get my dinner here too. We begin working as soon as we have done dinner.

Mary White, paper cutter.—I am going 15. I have never been to school. I have been working since I was 8. I cannot read.

Harriet Brady.—I am going 12. I go to school sometimes on Sundays. I come at 6½, sometimes at a quarter to 7. (Can read a little.)

Samuel Cartledge, dipper's assistant.—I am going 11. I have worked only about 2 months. I come at 6, and go away at 5½. I get my breakfast at 8½, I have half an hour. I get my dinner at 12. I go home to dinner. I come back at a quarter to 1. I have been to school. (Can read and write.)

Vashti Ashbury, platemaker's assistant.—I am going 15. I have worked about 2 years. I have never been to school. I cannot read. I come at 6. I go away at 5½. I get my dinner at 12. I go home to dinner. I come back at 1. I always have an hour for dinner. I have only stayed away from work one day since I have been here.

George Clarke.—I am going 11. I have worked a year and 2 months. I turn jigger and run moulds. I get my dinner at 12. I bring my dinner with me. I live a good way off. I have been to school. I cannot read. I have never stayed away from work because I was ill. My father is a soldier; he has left my mother. I get 2*s.* 6*d.* a week. I work for an apprentice.

Messrs. S. and H. Wolff, Australian Pottery, Ferrybridge, Yorkshire.

Joseph Wood, platemaker's assistant.—I am 10 years old. I have worked 2 years. I come about 7. I go away about 7, sometimes before and sometimes after. I have stopped to 8. I never worked later than 8. I get my dinner at 12. I have an hour for dinner. I always go home. I turn jigger and wedge clay. Sometimes I run moulds. I get 3*s.* a week. I got 1*s.* 6*d.* when I first began. I have been to school. I cannot read. I have never stayed away because I was not well, except once when I scalded my finger.

Thomas Lockwood.—I am 13. I have only been a year and 2 months at work. I have been to school. I cannot read.

Benjamin Wild, platemaker.—Boys are generally employed by platemakes, though there are some girls among them. Boys of 14 or 15 either become apprentice, or go to the stone quarries, or get work with the farmers about. Only one or two dishmakers pay so much as 5*s.* a week to their boy. They only employ one boy. I have worked here about 8 years. In that time I have known several of the workmen die of asthma. I know one who died at 39.

Joseph Blackburn.—I am about 7. I work for a platemaker. I have worked about 6 months.

James Downing.—I am going 11. I have worked 2 years. I have been to school a little. I can't read. I go to school on Sundays. There is a night school; I am going to it after Christmas. I come at 7; I go away at 7. I have stopped till 10 two or three times. When I worked to 10 I had worked regularly through the whole week. I never stayed away from work because I was not well. I have never been ill since I have been to work. Sometimes I come at 6. I stop to 7 when I come at 6.

Elizabeth Shaw.—I am going 15. I run moulds. I have worked 5 years. I am bad sometimes. I stay away sometimes when I have a cold or a headache. I never went to school. My father is a shoemaker. I come at 7, and go away at 7. Sometimes I stop to 7½, sometimes to 10. I have stopped to 11. I have stopped to 11 when we have had orders to finish. I have never stopped so late as 10 more than one night in a week. I get 4*s.* 6*d.* a week.

George Tomlinson.—I am 11 years old. I have worked nearly 2 years. I have been to school. (Reads well.) I learnt to read before I came to work. I can write a bit. I go to night school now. I am learning reading and summing. I am doing addition; 3*s.* 6*d.* and 1*s.* 6*d.* are 5*s.* I come at 7; I go at 7. I often go away before 7; sometimes after. I never stopped to 9.

Elizabeth Hobman.—I am 10 years old and 1 month. I can't read. I never went to school before I came to work. I have worked 2 years. I go to Sunday school now. I run moulds and turn jigger. I get 3*s.* 6*d.* I got 2*s.* 6*d.* when I first came. I have only stayed away once because I was not well. I stayed away a week then. I come at 7. I go away at 7. I never stopped later than 8.

William Wood, mould runner.—I am 12½ years old. I went to school before I came to work. (Can read.) I can write. I come at 7; sometimes I come at 6. I go away at 7. I never stopped to 8.

John Wright, mould runner.—I have worked about 9 months. I am going 9. I have been to school. I can't read. I come at 7, and go away at 7. I never stopped after 7. I go home to dinner at 12. I have never stopped away because I was ill, except once when I hurt my foot.

George Thomson, foreman.—We have to stop up with the fires; we employ boys of about 15 to help us. The boys never stop up at night.

Eliza Wood, transferrer.—I am 12½ years. I have worked nearly 5 years. I worked as a cutter till lately. I come at 7; I go away at 7; sometimes at 7¼. I never stop later than that. I can't read. I go home to dinner sometimes; sometimes I get my dinner here.

Anna Martha Swinter.—I am going 8. I have not been quite 2 months at work. I cut papers. I get 2*s.* 6*d.* a week. I have been to school.

Sarah Ann Swinter (sister of last witness).—I am going 10. I have worked 3 years. Father works in the slip-house. I go to Sunday school. I can't read. I come at 7, and go at 7. I generally go home to dinner. I get 3*s.* I got 2*s.* when I first came.

Joseph Boxton, packing-house boy.—I am going 12. I have worked a year or two. (Can read.) I learnt to read at the free school. I was a year at school. I come at 7, and go away at 7. I have stopped to 9 when we have been working out of time. I get extra wages. I get 2*d.* a night extra for working from 7 to 9.

The Pottery Manufacture.

The Royal Porcelain Company, Worcester.

Worcester.

Mr. F. D. Longe.

Mr. Binns, managing director.—The rate of wages for china platemakers is higher than that for earthenware platemakers. The clay is more difficult to use, more skill is required, and fewer plates are made. I do not think that we should be at all inconvenienced by a law that children should not be allowed to work beyond 6 p.m. The exceptional cases, when we should require the men to work after 6, might be met by their arranging beforehand to employ other lads. A rule that no child should work after 6 who had worked before could be easily carried out.

Thomas Hopkins.—I am going 10. I have worked one year. I have been to school. I can't read. I can write a bit. I was only one month at school. I come at 6, never before. My master is seldom here at 6. He generally begins about 7. I go away at 6 in the evening, sometimes at 5, sometimes I stop to 8, about twice in the week. I never stop after 8. I go on Sundays to St. Peter's school. I get 2*s.* 6*d.*, which is paid to my parents.

Albert Hutton.—I am 12 next July. I have worked about 6 months. I can't read very well. I can write. I come at 6, sometimes at 5, about three times a week at 5. I go away at 6, sometimes at 7. I have never stayed longer than 7. I have my dinner at 1 o'clock. I have an hour for dinner, and always go home. I breakfast at half-past 8 ; I go home to breakfast.

William Morris.—I am 13. I have worked 18 months. I was three months at button making before I came here. I went to school for 4 or 5 years. (Can read short words.) I do not know how much 6 times 8 are. I come at 9 on Mondays ; on other days at 6, 7, or 8. I go away at 4 sometimes, at other times at 5, 6, or 7. I very seldom stop after 7. I always go home to breakfast and dinner. I get 2*s.* 6*d.* a week.

Henry Jenkins.—I am 16. I have worked 5 years. I went to school for 3 months. I can't read There are night schools. I could go to night school; I always go away at 6, but I never go to night school.

Herbert Taylor.—I am going 13. I have only worked 1 month. I have been 3 years at school. (Can read.) 6 times 7 are 42. (Does not know where Wales is, nor London, nor the county in which Worcester is situated). When I was at school I learnt reading, writing, and arithmetic.

George Partridge.—I am 10 years old. I have worked 18 weeks. I went to school for four years before that. (Can read and write.) There are 100 shillings in 5 pounds. I come at 7 in the morning, and go away at 5 in the afternoon.

Joseph Lawton.—I am nearly 9. I have worked about a month. I come at 7½, and go away at 8 in the evening. On Saturday I leave at about 3½. I have been to school. (Reads a little.) I can write a little.

William Lawton, platemaker.—I used to work at Messrs. Wm. Ridgways', at Hanley. I have been here 10 years. The china plate-making is less hard work than earthenware. The earthenware work is much more injurious, they have to work so much harder and to make more for their money. The price of good earthenware plates is 3*s.* 6*d.* for a score dozen, and for china plates we get 7*s.* 6*d.* for a score dozen. I could not make so many china plates by 30 dozen in the day, as I could earthenware. It is the same for the boys employed by the china platemakers, they have very much less work. We have much more flint-dust about us than the earthenware potters, but less heat. Although earthenware is so much cheaper than china, and the workmen have to make so many more plates than we have, they get as much money as we do. We generally employ 2 boys, one to turn the jigger and one to run moulds, and wedge clay ; never more. A cupmaker might have 3 boys, but no more.

William Davis, hollow-ware presser.—I have been 18 years in these works. I worked about 20 years at Rose's at Coalport. I began when I was about 8 years old ; I began making handles. I have always understood that the chinaware trade is more unhealthy than the earthenware trade, owing to the great quantity of dust of a pernicious character, which is produced by some of the ingredients. It is lighter work than in the earthenware manufacture. At Rose's the potters died very young, but I cannot remember any men who have died under 40 at these works ; I think the rooms in this manufactory are larger and more airy.

John Cotton.—I have worked 40 years in this work. I worked for a short time at earthenware at Minton's. I know from experience that the china work is more unhealthy than the earthenware work. The china clay dries much sooner and causes much more dust. I shall be 51 next month. Most of my early companions have died. The lungs are destroyed by the dust. Asthma and consumption are the common causes of death. I have never known cases of boys suffering from the dust, they feel the heat more, but then their lungs are strong, and not so easily affected. The china work is lighter than the earthenware work. The unhealthiness of the earthenware trade is to be attributed to the heat of the stoves. The manufacture of granite is very dusty, owing to its being polished when dry with sand paper, instead of being polished when moist by a sponge.

Jemima Day, scourer.—I have been in the scouring room about 2 years. There are 2 boys and 10 young women employed here. The girls are all about 17 or 18 years old. We reckon the work very unhealthy, but I do not know of any case where a woman has died of consumption from it. "Trimming" the ware is still more injurious. "Trimming" is rubbing off the dry glaze from the biscuit ware. We feel the dust in our stomachs. We have the same work every day. The boys brush the dust off and we scour the ware afterwards. Only 2 of us have been here over 2 years. I do not know of any who have left for illness.

Shropshire.

Messrs. J. Rose and Co.'s Porcelain Works, Coalport, Shropshire.

Edwin Bowen, turner's assistant.—I am 12 next March. I have worked about 2 years. I come at 7 o'clock ; very seldom before 7. I go away at 6 o'clock. I have only once stopped to 7. I get my dinner at 1. I have an hour ; go home always. I went to school for a short time before I began work. I can't read. I get 3*s.* a week. There is a night school, but I don't go to it. I am never too tired. I don't go to Sunday school either. None of us can read except one of my sisters.

Frederick Fennell.—I was 11 last April. I have worked about 3 months. I come at 7½ ; I go away at 5½ sometimes ; I have stopped to 7½ or 8. (Can read well.) I was 6 years at school before I came to work. I get my dinner at 1. I don't go home, because I live too far off. This river is called the Severn ; it runs to Bristol. This county is Shropshire. (Does not know the names of the adjoining counties.) I often read at home. I read the Wellington Journal. I have some little story books which I read. I have one with me now ; it is called Amos Armfield.

Enoch Fletcher.—I am going 12. I am 12 next Valentine's day. I don't know what day of the month

that is. I go to school on Sundays. (Can read a little.) I have worked 4 or 5 years. I come at 7, and leave off at 6.

William Tranter.—I am 13. I have not worked a year yet. (Reads well.) I have been 5 or 6 years at school. I get 5*d.* a day.

Scourer's Room.

In this room there were 4 elderly women, who had been employed at scouring for many years. They stated that they had not suffered from their work, except that their breathing was affected.

Messrs. Doulton and Co.'s Stoneware Pottery and Drain-pipe Manufactory, High Street, Lambeth.

Mr. Henry Doulton.—We have only 7 boys under 13 employed in our works. The younger boys are employed in making balls of clay for the apprentice throwers. No girls or women are employed in our manufactories, nor, I believe, in any of the Lambeth potteries. The lads who attend the kilns, generally work only one night in the week, never more than two. We very rarely have any overtime work, and when we do, we never have more than 2 nights in the week. We never employ our workpeople later than 9 p.m. Nearly all the throwers' wheels are turned by steam power. The engines are regularly stopped at 6 p.m., except when we are working later, which, as I have said, is very seldom. I do not think the half-time system would be at all practicable in our trade. If it was applied to the pottery trade, we should not employ any boys under 13. All the boys in our works are hired and paid by us. None receive less than 4*s.* 6*d.* per week. The goods manufactured in our branch of the trade are for the most part heavy, and the labour of children would not be serviceable. With regard to a restriction of our hours of work to between 6 a.m. and 6 p.m., we so seldom have overtime, that I do not think such a law is either necessary or desirable. Overtime is on some rare and particular occasions absolutely necessary; as, for instance, when some of our shops are under repair, or some of the machinery breaks down. If we could not have recourse to overtime, we should have to throw some of our workpeople out of work. The workpeople would be prejudiced by such a restriction more than ourselves. There is no lead used in our glazes. Stoneware is glazed with a solution of felspar and clay. There are night schools in the neighbourhood, and we always insist on those boys attending them who cannot read. We have returns from the masters to show whether they attend or not.

Salt-glaze or Brown-ware and Stoneware Potteries, Brampton, Chesterfield, Derbyshire.

Mr. J. Oldfield's.

Mr. Robert Oldfield, manager.—We employ altogether between 40 and 50 hands. That would be about the average number employed by the other manufacturers of salt-glaze and stoneware in this neighbourhood. The salt-glaze ware is not dipped in any glaze as the white ware is. A little slip, which has no lead in it, is poured into the jars to glaze the inside. The outside is glazed by the salt which is thrown into the kiln when the ware is being fired. A little lead or barytes is sometimes mixed with the glaze for the stoneware. We employ 3 pressers, who do not require children to assist them. We have 4 throwers, who have 2 assistants. These assistants are boys or girls of about 15 to 18. It is too heavy work for young children to be of any use. We have 5 turners, who have 1 boy or girl to turn the wheel for them. They ought to be 15, though it is not such hard work as turning the thrower's wheel. We have 3 kilnmen, or firemen. Each fireman has 2 boys, for carrying the ware and helping him in attending the fires. These boys also help the firemen in placing the ware, and in drawing or emptying the oven. These boys should be from 15 to 18. We hire and pay all the boys and girls ourselves. This has always been the custom in this branch of the trade. Boys of 15 get about 5*s.* or 6*s.*; and the women get about 6*s.* or 7*s.* We employ women to handle. Our regular hours of work are from 6 to 6, with half an hour for breakfast, an hour for dinner, and half an hour for tea. We very seldom have any work after 6 p.m. We have not had any cause lately. The kilnmen and their boys have to stay up through the night. One man and his 2 boys stay up 2 nights each week when we are in full work. An oven takes about 30 hours to be fired.

Mr. Samuel Lowe's.

Thomas Jackson, thrower.—Our regular hours of work are from 6 to 6; but we sometimes begin at all hours of the night; at 1, 2, or 3 o'clock, when we want to get our work done early. On Saturdays we often come at 4 o'clock, and leave at 2 or 2½. When we begin early the boys or girls who work for us begin early too, of course. I daresay if we were obliged to work only between 6 and 6, more work would be done. I am quite sure we do not work so hard now as we should have to do, if we only worked between 6 and 6. I came at 10 o'clock this morning.

Walter Horner.—I am going 12. I have worked about 3 years. I began in a brickyard. I get 4*s.* a week. I generally come at 6; on Saturdays I come at 3 o'clock. Sometimes I work till 4 o'clock on Saturdays. Sometimes we have done by 3 o'clock.

Sarah Beresford, handler.—I am going 16. I have worked 5 years. Two other girls work with me. We make handles and put them on the jugs, &c. We always have to get our work done for the kiln. If the throwers and turners are late with their work, they press us. They do not often press us; when they do, we have to work later; till 8 or 9 o'clock. We sometimes do not begin till 8½. I have only once been ill from a cold.

Charles Morgan, presser.—We all know what work we have to do every day, and we choose our own time in the day for doing it. The quantity varies every day; but we never have less than 4 nor more than 6 hours' work. I doubt whether an absolute law requiring our work to be done between 6 and 6 could be carried out. I often have nothing to do in the morning. If I came at 6 I should have to wait until my work was ready from some other man, *i.e.*, the turner. In the white potteries the work of one man does not so much depend upon another as in this business. They have more room to keep stock in, and the ware can be kept longer in an unfinished state. I have worked in white potteries where the places were regularly locked up at 6 o'clock. I think this work is more healthy than the white pottery work, except in the kilns. We have no flint-dust, no lead in the glaze, and not so many stoves in the shops. The stoves are generally heated at night, but they are sometimes kept hot in the day. The stove in which the ware is placed after it has been thrown is kept hot all day.

The Pottery Manufacture.

Derbyshire.

Mr. F. D. Longe.

Mr. G. Knowles's Pottery.

Mr. G. Knowles.—The trade of all the potters here is very similar, and we employ about the same number of hands. We have about 3 children under 13; 1 girl and 2 boys. It does not answer any of our purposes to employ young children. The children are hired and paid by the master. We should never employ little girls unless we were compelled, and that is not often. Our regular hours of work are from 6 to 6; but the men do not keep regularly to those hours. Speaking for my own works, I know that the men very rarely come before 6. They then work till they have done their work, which generally is about 5 or 6 p.m. Occasionally they work after 6, but never so late as 10. I have no difficulty in keeping them to the regular hours, but I know it has been too much the practice of potters to work at irregular hours. I believe it is a general custom in this trade for the turners to begin one or two hours earlier on Saturdays, so that they should have their work ready for the handlers to finish before they go on Saturday. Our work must be all finished and ready for firing on Saturday night. Until lately we have not had a good schoolmaster in the National school at Brampton. I think the minister interferes too much in the church school. When clergymen are too strict in forcing their religious doctrines upon the little children, the parents do not like it. I know that for this reason a number of children do not go to this school, who would go otherwise. I have been a Sunday school teacher myself. I do not allow early work; it costs too much gas. There is no flogging or abusing children allowed. If the children are naughty, I fine them; but I give the money to their parents. I should like a law compelling children to leave off work at 6 o'clock. It would be a benefit rather than injury to our business.

Newstead Gregory.—I am going 14. I began to work when I had just turned 6. I began in the packing house at Oldfield's. I get 1*s.* 6*d.* a week. I went to school before I went to work. I can't read. 6 times 8 are 48. Eighteenpence and half-a-crown are 4*s.* 9 times 2 are 18. I don't know what county this place is in. There are 4 nines in 36. There are 8 half-crowns in a pound. There are 100 shillings in 5 pounds. Mutton is 7*d.* a pound. I should give 1*s.* 9*d.* for 3 pounds of mutton. I come at 6; sometimes at half-past 5; never before that. I go away at 6. I never work later than half-past 6.

James Davenport.—I am 14 next April. I turn the lathe for a turner. I have worked 2 years. I began in the warehouse. I go to school on Sundays. I never go on week-days now, since I have been to work. (Can read well. Reads a written letter fairly.) There are 4 nines in 36. There are 100 shillings in 5 pounds. I read the Testament at home; sometimes I read newspapers. I have read the Chesterfield Times, and the Journal. I come at 6; sometimes before 6. I came this morning at 2 o'clock, because it is Saturday, and we want to get done. I have finished work for to-day. (N.B. About 12.30.) Last Saturday I came just before 6. I finished last Saturday after dinner. I have never worked later than half-past 8. I was 3 or 4 years at a day school before I came to work. I went to the Victoria school. I paid 4*d.* and then 6*d.*

Elizabeth Bradshaw.—I am going 12. I have worked about a year and a quarter. I used to work at the pill-box factory. I now turn the wheel for an apprentice thrower. I have been to school. (Knows her letters.) I can't write. I come at 6. I never come before 6. I always go away at 6. I have an hour for dinner at 12. I always go home. I have half an hour for breakfast. I am never tired at the end of the day. I get 2*s.* 6*d.* a week. I like this better than pill-box factory, because we were always scolded there.

Mr. William Briddon's.

Mr. W. Briddon.—Our hours of work are about 10 hours a day, *i.e.*, from 6 to 6, with half an hour for breakfast, an hour for dinner, and half an hour for tea. The workmen are not particular about their tea; sometimes they do not have it until after they have done work. It is seldom they work after 6, but our men suit themselves. They have their work to do, and they can do it when they like. It would suit us better that they should only work between 6 and 6, but they can come when they like in the day or night. They can light the gas as they please. I should not mind a law prohibiting children under 13 working before 6 a.m. or after 6 p.m. It would not hurt our business at all. I had much rather they were confined to that time. I should not mind a rule that all persons, of every age, should only work between 6 and 6. I think that is quite long enough for any one.

John Lenny, fireman.—I began to work when I was 6 years of age. I first worked in the packing-house at Mr. Oldfield's. I got 1*s.* a week at first. When I was 7 years old I got 1*s.* 6*d.* I then left and came here, and have worked here as kilnman ever since. I am now 46. It is very hot work. I have been laid up with rheumatism. The boys bring the ware to the kilnman to place, and take it away when he is drawing the oven. It is not necessarily hard work for them. They have not to go into the oven to draw the ware. Joseph Stevenson has worked here 4 years. He is my wife's son. He began when he was 6 years old. He works with me. He got 3*s.* when he began, and he gets the same wages now. He never stays up at night. Another boy of 15 works with him. He stays up 2 nights a week.

Joseph Stevenson.—(Can read.) I learnt at the new school before I came to work. I learnt to write too. I have forgotten how to write. 6 times 7 are 42. Eighteenpence and half-a-crown are 4*s.* There are 28 days in a month. There are 52 weeks in a year. (Does not know how many days there are in a year.)

John Briddon.—I am 14 next Christmas. I have worked 2 years. I turn the wheel for a thrower. I get 3*s.* I come at 6. Sometimes I begin at 3 or 4 o'clock. I come at 4 two mornings in every week. I go away at 6 generally. Sometimes I work till 8.

Thomas Horton.—I am going 12. I was 11 last races. I have worked 4 years. I turn the wheel. I worked in the warehouse when I first came. I get 3*s.* 6*d.* a week. I come at 6; sometimes before; never so early as 5. I generally go away about 6. I never went to school. I can't read. I should go to school if I had better clothing than this. My father works in the pottery. I have 3 sisters and 1 brother. My brother and one of my sisters work. I am tired at night. I go home and go to bed.

George Lenny.—I am 13. I have worked 3 years. I wedge clay. When I first came, I worked at the kiln with my father. I used to go into the kiln to take the ware out. It was very hot work, but the heat did not make me ill. I go to school on Sunday. I went to day school before I came to work. (Can read.) 5 times 4 are 20. I can't write. I am reading Testament at the Sunday school.

William Gregory.—I am going 12. I have worked about 2 years. I never went to school before I came to work. I go to Sunday school sometimes. I can't read. Before I came here I used to work for my mother and play about. I come at 6; sometimes at 5. On Friday we sometimes begin at 4. I go away sometimes before 6; sometimes at 7 or half-past 7. Sometimes we give over at dinner time.

135

THE LUCIFER MATCH MANUFACTURE.

To Her Majesty's Commissioners.

Gentlemen,

The evidence relating to the manufacture of lucifer matches which I have the honour to lay before you was, unless where otherwise stated, taken by myself, in all but two or three cases, from persons whom I found at factories and other places which I visited for the purpose. The Lucifer Match Manufacture.

I visited every establishment on however small a scale in the whole of the United Kingdom in which matches are made, so far as after a careful inquiry at all the most likely sources I was able to ascertain them, children or young persons being employed in one or more parts of all these establishments; but of a few of the smaller of these, viz., four in England and one in Ireland, I have omitted any account. Report by Mr. J. E. White.

This manufacture is dangerous and unhealthy to the people employed in it, and also depends for its success upon the possession of chemical secrets, and I was told that I should meet with opposition to my inquiry in some important places.

I feel bound to say, however, that though in several instances I found at first considerable jealousy, in consequence of the peculiar nature of the works, yet in most cases at once, and in others after a further explanation of the real objects in view, I met, in all but the two or three cases noticed in the evidence, with every facility to my obtaining the information sought for, and an evident sincere desire to further the objects of the Commission.

To avoid the frequent insertion in the body of the evidence of explanations of terms and processes, which would otherwise be necessary, and to show at once the real nature of the employment and its details, which are material, and which it would be a work of time to pick out from the separate and disjointed statements of witnesses, I have given a short outline of the manufacture and its processes, at the same time drawing attention to those parts of the evidence which seem to require more particular attention, as well as to some other points which from their nature could not be embodied in the evidence itself, but could be gathered only from my own general personal observation or special inquiry.

The manufacture of lucifer matches, though of not many years growth and but little known, is now carried on upon a very large scale in this and other European countries, principally Germany, France, and Sweden. The principal seats of the manufacture in this country are the poorest and most thickly peopled parts of London, as Bethnal Green and Whitechapel, and some few of the largest provincial towns, as Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle, Glasgow, Aberdeen, Belfast, and a few others. The labour employed is chiefly that of children, young persons, and women, with a few men. History and seat of the manufacture.

The manufacture takes its rise from the discovery in the year 1833 of a way of applying phosphorus to the match itself. Before that time many kinds of matches and other chemical means of producing light had been tried, but were all too costly, uncertain, or dangerous to supersede the general use of flint, steel, and tinder, slow and awkward as those latter means now seem. It was still some few years before the manufacture was established in England, the continent being its earliest seat.

It is important to notice these facts as they account for the absence of any general knowledge of the nature of the employment and its effect upon the health of those engaged in it; the most marked of these effects being of a kind that have rarely been found to occur until after employment in the work for a considerable time, sometimes for years, and the less marked being more like common ailments, and thus easily escaping notice or being assigned to other known and common causes.

It was not till the year 1845 that medical attention was first turned by a paper then published by the surgeon of an infirmary in Vienna to a most painful and loathsome disease found amongst the workpeople in match manufactories, now known as "necrosis" of the jaw, or "the phosphorus disease," the "match disease," or amongst the workpeople themselves as "the jaw disease," or simply "the disease," or "the flute," or "the compo." It seems to be at first, as one of its names implies, merely a local disease affecting the jaw bone, but it causes in all cases, when fully established, great and almost unbearable pain, lasting with little or no relief even of sleep for months or often years, ending only with the loss of parts or the whole of one or both jaw bones, and so to a greater or less degree of the power of mastication, and often, as seems but natural and is proved by facts, in an entire breaking up of the constitution and death. Diseases developed by.

The disease begins with toothache. This gradually becomes more violent and more constant, the gums and face swell, and the teeth decay and fall out. It will be well, however, to give some of the details as taken from a lecture delivered by Dr. Letheby, at the London Hospital, to which, from its situation near a great seat of the manufacture, many cases of the disease are brought. "From this period," says Dr. Letheby, "the swelling of the face grows larger, it extends to the neighbouring glands, the "gums, spongy and red, retire from the teeth, and give exit to the openings thus formed to a most "offensive smelling pus; one or more abscesses form over the jaw, they break, and at every opening "the same kind of unpleasant smelling matter is discharged, sinuses are established, the livid gums "retire more and more from the teeth, which loosen and drop out; the jaw becomes exposed, and, "on probing it, it is found to be rough and diseased; portions of bone exfoliate, and at this point the "disease sometimes becomes arrested and the patient recovers; more frequently, however, the retire "jaw becomes involved in the mischief and dies. Such a condition of things cannot be expected

The Lucifer Match Manufacture.

Report by Mr. J. E. White.

"to go on without producing its effects on the general system; the patient, in fact, becomes irritable, "his nervous system is often highly excitable, his strength gives way, he loses flesh, becomes the "subject of diarrhœa, then of low fever, and after lingering for a longer time than you would think "possible, he is at length worn out and dies."

It is needless to multiply such details as might now easily be done from medical sources, but the evidence furnished below shows the account here given to be strictly true, and that the disease is now well known in this country also.

Disease of the jaw, as well of the other bones, is known to arise sometimes from other causes, but it is, so far as I have been able to ascertain by careful inquiry from competent professional men, an admitted medical fact that such a disease as above described is undoubtedly caused, though in some way as yet not known to them, by the action of the phosphorus contained in the lighting composition applied to the matches. This is also the universal belief of all persons familiar with the work, at least those who are old enough to think of such things, for many have begun as young as 7, others at 6 or even 5.

The disease is found less in this country than abroad, where it has been so serious as to draw to itself the attention not only of the medical profession and other bodies, but of Governments. The cases also seem to have been less frequent the last few years than formerly, and are often said to have occurred only amongst the few persons who prepare the phosphorus composition, and put it on to the matches, who are chiefly, though not entirely, adults. But some cases in England, and very many abroad, as reported in several medical works, show that the evil spreads far beyond these.

Many other less serious effects upon the health of the workpeople, such as general loss of health, languor, affections of the throat, chest, and other internal organs, decay of the teeth, &c., have been observed by medical men who have attended to the matter to be more common than usual amongst people engaged in match factories.

Only a medical man dealing with people regarding themselves in the light of patients, and having himself patients from several classes differently employed, seems in a position to obtain true and sufficient data for forming a trustworthy conclusion as to their comparative health.

There is, I have always found, a great unwillingness to admit any want of health amongst those well enough to work, even where the pale and wasted look, languor, short breath, hoarseness, &c., make it very clear, even to the common eye, and lead to questions on such points; though it would be strange indeed, putting aside all question of the effects of the employment itself, if there were not much ill health amongst a population so ill fed, ill clothed, and ill housed, and shut out from fresh air, as most of those engaged in it are.

As to the state of the teeth, it is often difficult even to observe accurately. Children do not open their mouths in such a way as to allow of all the teeth being seen, especially in places very ill lighted, as many are, and the teeth are often covered with particles of food. Again, many of the children are of an age when some decay is natural, and first double teeth remain in some much longer than in others. I observed, however, a considerable amount of decay.

Burns, generally slight, but sometimes very serious, are common. No provision for treating these on the spot, which it seems might be very simply done, is ever made; and there is much needless pain and inconvenience short of that which requires a visit to the hospital or the doctor.

The physical influences, however, to which workpeople in match manufactories are exposed can be better judged of by looking at the nature of the work in detail. A somewhat minute explanation of this is almost unavoidable in order to make the evidence itself intelligible.

Processes of the manufacture.

The manufacture in its complete form embraces many branches, including the making of the box (unless ornamental or of metal), as well as of the match itself. Again, there are many distinct classes of match, such as the wax taper match, the common wood match, and fusees for tobacco, as well as many varieties within these large classes. There are likewise many varieties of boxes, some of wood or shaving alone, others of this material covered with paper, some of paper only, and all of many different constructions. All these varieties cause a greater or less difference in the number and character of the processes required, which it would be as useless as endless to set out.

At one large factory, where the whole work was completed on the premises, I counted nearly as many as 20 distinct processes through which every match has to pass, and as many in the case of the boxes; many of these processes, again, being complex, and requiring a longer or shorter series of hands to complete them. A rough outline only of the usual course can be given, without going into all the minute variations.

For the common square sided wood match large timber (the finest pine is used for all but the very cheapest kinds) is sawn into planks, and the planks into short blocks. The blocks, softened by steeping in steam or hot water, are cut into thin strips or "splints," of the breadth and thickness of the match, but double the length. This is generally done by machinery, which slits the surface of the block by a set of parallel lancets, and passes a knife under the bottom of the slits, at one movement, also letting the splints fall and shifting the block on ready for the next stroke. The splints are picked up, arranged, "straightened out," tied in bundles, and dried in stove rooms of very great, and, from the dampness, suffocating heat, of from 120° to 150° Fahrenheit, according to my own experience; but this is far exceeded, as I have seen it stated, even up to the temperature of 400°.

In London, where the demand for splints is large, the cutting of them forms an entirely distinct business. The bundles, when dry, are placed on hot iron, and the scorched end is then, while hot, dipped in melted sulphur, or, if of the better sort, in stearine or some fatty matter. The scorching wood is pungent to the eyes; the sulphur causes irritation of the throat and coughing.

The bundle is then "rolled out" or "dusted out," *i.e.*, rolled violently with the hand, nearly always by young boys, to knock off the superfluous sulphur. This fills the air with the dust, which covers the face and clothes, and is of course taken in largely at the nose and mouth, causing cough, choking, &c.

137

The process is repeated for the other end of the bundle.

The Lucifer Match Manufacture. Report by Mr. J. E. White.

In all but the commonest matches, made chiefly at the smaller places, the matches are taken loose from the bundles and put into "frames," or "clamps," or "sets." The "clamp" in its original and rude form is like two large combs fixed parallel to each other across which each match is placed singly between 2 teeth. The "frame" now in common use is formed by successive layers of from 30 to 50 thin strips of wood, each strip notched on one surface with about 50 cross grooves. A strip is placed between two supports, grooves upwards, and a match placed in each groove. A second strip is placed over the first and the process repeated till the frame is full, thus holding (50 × 30) 1,500 matches or upwards.

This is done by the hand, and employs by far the larger proportion of all the children engaged in match manufactories.

I have been informed by one of the largest manufacturers that he has just completed a long and universally sought invention for performing this operation by machinery, though it is not yet fairly at work. If this should prove successful, it must soon be generally adopted; and will be worked by a few adults instead of the numbers of children now required.

The next process is "dipping" the tops of the splints in the lighting composition, commonly called "compo," or "stuff," which is made in this country as follows:—

The lighting composition.

Phosphorus is added, in small quantities at a time, the amount being greater in proportion to the cheapness of the match, to glue, which has been soaked and heated as for other common uses, and the whole stirred constantly till the phosphorus is finely divided, a neglect of which would cause danger of explosion. Chlorate of potash, some colouring matter, and other materials in proportions and according to the recipe of each manufacturer, usually kept a secret, are added one by one, and the composition stirred till nearly cool. Some of the cheaper compositions are said to contain 2 parts of phosphorus to 2 or 3 of glue and colouring matter, and no other ingredient.

The proportion of phosphorus however generally used in this country is less than that used on the continent. The operation of thus "mixing" the materials is attended with danger not only from the fumes given out, but from the risk of explosion unless carefully conducted. Little boys are often employed to stir the composition, a tedious but light labour, and have their faces for a long time, perhaps half an hour at a time, close by or actually over the composition, and likewise often get splashes of it on their hands and clothes.

For use the composition is spread evenly upon a stone slab or iron plate, heated by steam or a stove. Iron absorbs the composition less, and can be moved more easily.

The dipping.

The tips of the matches, either left in bundles or put into frames as already mentioned, being struck on a bare part of the stone if necessary to bring them all to one even surface, are dipped in this paste, which must often be smoothed out afresh for another bundle or frame. When dipped in the former way matches are called "bundle dips," when in the latter, "frame dipped."

The "dipper," usually, but not always an adult, is exposed to the vapour plentifully given out by the large heated surface, and the bundles or frames are usually "handed," or put on the slab for him, and carried away after being dipped, by boys, who are thus exposed to the same vapour, and are also frequently burned by splashes of the composition on their flesh and clothes.

"Bundle dips," must be "rolled out," *i.e.*, shaken apart, while still moist, and therefore still giving out a large amount of vapour, in order to prevent the tips from sticking. The bundle dip composition being used chiefly for the cheaper match, and containing as stated a much greater proportion of phosphorus, and the matches being still damp, dense fumes as well as small particles of the composition itself, are thrown off during this operation, usually also performed by boys.

The bundles or frames are then dried either in the workshop or a room usually artificially heated, called the "drying" or "stove" room, or sometimes in dry weather out of doors.

A large amount of vapour is given off by the matches while drying, especially in a close and heated room.

The cutting, boxing, &c.

Before the matches are so dry as to ignite easily by friction, and therefore still giving out much vapour, they are taken from their bundles or frames and cut in two by a knife fixed at one end like a chaff cutter, and put into the boxes, in which they are sold.

During these operations called "cutting down," or "cutting" and "boxing," and performed in most places by women or young people, the labour being light, the matches, especially if "sharp," or containing much phosphorus, as the cheaper sort do, frequently catch light, or "fire," causing not only burns but suffocation and coughing. Where proper means, as sand, a wet cloth, &c. are not provided for putting them out, this is done by holding the naked hand for several moments over the flame to "smother" it.

During the cutting and boxing the vapour of the phosphorus may be seen in broad daylight rising over the benches, and sometimes escaping even from the closed boxes.

The filled boxes are lastly "lapped up" or packed in papers holding a dozen each, and are stored away either in one of the workshops or in a separate room.

"Fusees" or "vesuvians."

"Fusees" or "vesuvians" (not however the paper fusee), are made in much the same way, except that the bulk of the composition used for them, and in which they must be dipped about five times, contain no common phosphorus, which is added in the composition used at the last dipping forming the red tip.

The splints of these are round and imported from Germany, where they are made by pressing the wood through a kind of colander with sharp-edged holes.

"Paper fusees."

For the paper fusee sheets of pulpy brown paper steeped in a solution, consisting chiefly of saltpetre, and dried in a stove-room, are cut into narrow strips, which are slit up with a saw into a comb shape.

The Lucifer Match Manufacture.

Report by Mr. J. E. White.

The composition used for these, prepared like that for common matches, is applied by means of a stick, used as a paint brush, to the slit ends of these strips conveniently arranged in rows on a small board for the purpose.

The teeth of the comb are then pushed apart while still moist so as to stand out alternately on opposite sides in order to prevent their sticking together, as in the case of the "bundle dips."

The fusees are then set on trays and placed on racks to dry, generally in the same room, as this branch of the manufacture is small, and seldom has more than one room set apart for it. They are made chiefly by women and girls.

Vapour is given off, and the fingers and clothes splashed or burned, as in the case of the common matches.

The "vesta" or "wax taper" match.

The manufacture of the "vesta" or "wax taper" match differs from that of the wooden in the preparation of the taper in place of the splint, and the better quality of the composition used. As this match requires neater workmanship and is more expensive, and is used by a higher class of consumers, higher wages also are earned, and the hands employed are of a higher class, almost entirely women and girls, working in a separate department.

Untwisted cotton, used to form the wick, is wound off from the balls over two large cylinders or wheels, one at each end of the "wax room."

In the middle is a large pan or boiler of melted wax, kept heated by steam, through which the cotton is passed backwards and forwards in several parallel lines of wick, at the same time, five or six times, by winding off from one cylinder on to the other until it is covered with a sufficient coating of wax; the thickness of this being determined by the size of holes through which the wick passes, pierced in a metal plate, fixed near the wax. A length of taper is then cut off, and subdivided into shorter lengths to form the matches.

The short pieces of taper are then like the wooden matches "filled" into frames, containing, however, from the smaller size of the taper a far greater number of matches, on the average about 60 rows of 50 matches each, or $50 \times 60 = 3{,}000$, and are dipped in the phosphorus composition, dried, and boxed in the same way. Before they are dipped, however, the tips, as in the case of the wood matches, are brought into an even surface by striking with the hand.

This is usually done near the dipping place by a young woman or girl, and is called "patting back." Vapour is given off by these matches, and they "fire" in being boxed in metal boxes, as in the case of the wood matches, but to a less degree, owing to the better quality of the composition.

The wax match is made only at the better class of manufactory, but on a rapidly increasing scale. In this branch the manufacturer is at no disadvantage as compared with the foreigner, whose materials for the wood match and box are so much cheaper, and any risk of loss from foreign competition in consequence of any legislative interference with the labour employed in the work is so far lessened. A large manufacturer states his opinion that the use of the wax light, in which the foreigners are less successful, is diminishing the importation of their matches.

The box making.

The box making, complex as it is, seems to have nothing peculiar in its nature or bearing on the health of those employed in it to distinguish it from other well-known employments, and is carried on in a great measure in private houses by women and children, who are supplied with the materials ready cut and prepared for their use at the match factory, or in London often at entirely different establishments, and bring back the boxes in a finished state.

This branch, however, where carried on upon the premises, consists in planing "scale boards," or "spales," or broad shavings to form the body of the box; in lining these with paper; in "scoring" or "stamping" or scratching, or, in the case of round boxes, punching them, so that they can be easily bent, folded, or formed into the required shapes, whether for box or cover; in fastening them together, sanding the outside, and cutting and pasting on labels, and other minor operations, all of a like light and, as to themselves alone, harmless nature, as are also most of the operations in the actual match making up to the dipping in sulphur, or, in those made without sulphur, in the phosphorus composition.

All the processes often conducted in the same place of work.

Want of space, however, and proper appliances, as well as obvious motives of convenience, often lead to bringing several or most of these operations, as well as the operations of sulphuring, mixing, dipping, drying, cutting, and boxing, packing and storing, into close contact with one another, even in the very same workshop, and that in such cases nearly always small and ill-ventilated.

Ill effects of on health.

In proportion as this is done the ill effect of a single process even, if it be produced by the agency of a subtle and powerful vapour, may, and in some cases seems proved to, extend to all.

That vapour of some kind spreads not only over the shops in which it is produced but to almost every part of the premises is plain to any senses not deadened by familiarity with such places.

On my first visit to a match manufactory, an airy place not in a town, I could smell the matches on merely entering the yard, at a distance of at least from 100 to 200 feet from the match shops then in use, though there was a store-room nearer.

The smell near the dipping places when in use, and the drying rooms when heated, was so strong and disagreeable, and the air so oppressive, that at first I could hardly bear to stand near them, and once or twice after leaving bad places I found a feeling of sickness, whether owing to the vapour or not, I am of course unable to say.

The sense of smell, however, and the feeling of oppression on entering even close places, which at one time would have rendered needless almost every other source of information, became gradually less keen and marked, and after a time I had to turn my attention especially to the point to enable me to judge at all of the state of the air, and then probably did not succeed.

The evidence of the workpeople is the same.

I may mention also that while I was visiting these factories, though spending but a comparatively short time in the workshops, but taking the actual evidence in a private room or the open air, and

130

The Lucifer Match Manufacture.

Report by Mr. J. E. White.

Conclusions.

though I was much in the air travelling often long distances between each place, everything in gold or silver about me, whether exposed or covered in pockets or elsewhere, even the very backs of shirt studs, were entirely discoloured, the silver turning nearly black. This no doubt was the effect not of the phosphorus, but of the sulphur. But it shows how the air in such places is loaded with vapour.

In drawing conclusions from the evidence so far as relates to this manufacture, it will probably be thought important to bear in mind that the general bodily as well as mental condition of those employed is of the very lowest kind, though this and the following remarks must not be taken to apply universally, as to those engaged in single positions, as foremen, dippers, &c., or at all to the full extent to those employed in the upper or wax match branch of the business, who are generally on this very account kept as much as possible from contact with the others.

The business, owing to the small amount of capital required to start it,—an amount large enough to buy a little wood, a few drugs, and the simplest implements, and perhaps to rent a separate shed, though this is not absolutely necessary,—and to the quick return for the outlay which will pay the scanty daily wages which find the labour, is open to persons of however slender means, character, or intelligence, who are little able, if they cared, to regard the welfare of their people.

This opens so many sources of competition, and consequently so reduces the profits, as to cause a great obstacle to the better class, who would of themselves be disposed to do more for the material and moral well being of those under their care.

These causes combine with the general dislike and low repute of the employment in keeping the more respectable people from entering into it, or allowing their children to do so, and any hands that can be got must be had; generally the ragged, half starved, untaught children, or taught, if taught at all, a bit now and a bit then, often in several successive schools, chiefly in the ragged or "free," who are willing to take whatever is given to them, being of a class that no one else will employ.

It is indeed to be hoped that they are, as stated by one of the masters, "the poorest of the poor "and the lowest of the low."

The small, almost garret, manufactories are however much less numerous now than they are reported to have been, and the business, owing to the demand for the article produced, seems passing to men of greater means and mind, and the increasing application of machinery no doubt tends in the same direction.

It will be seen that this is the feeling of the better sort of manufacturers themselves, and leads them to welcome rather than shrink from any legislation, which though it might slightly fetter their own freedom would have the effect of raising the character of the business as a whole.

Many even of the poorest but well disposed of them say that the present condition of things is very unsatisfactory and ought to be mended.

One of the masters employing several children, to whom he seemed very kind, but so poor, as he told me, through misfortune, that he got up that (Saturday) morning without money even to pay the week's wages, though he looked for some during the day, seemed quite grateful for the proof given by my visit, that the country really was caring for the helpless and ignorant children around him, and wishing to do something to better their condition. On his statement being read over to him for correction he said, "That is it, that's capital; and I hope it will do some good. If that's all I have "lived for I have lived for something."

All who speak at all upon the point, agree that as things are they can do almost nothing of themselves to mend them, and that the parents as a class have neither the power nor the will to do anything for the education or welfare of their children.

I have the honour to be, Gentlemen,
Your obedient servant,
J. Edward White.

London.

Dr. HENRY LETHEBY, M.B., M.A., Ph. D., and Professor of Chemistry and Toxicology in the Medical College of the London Hospital, and Medical Officer of Health for the City of London, attended by invitation a Meeting of the Commissioners held on the 5th of April 1862, and gave the following evidence:—

On the Use of Phosphorus in making Lucifer Matches.

Before giving his evidence, Dr. Letheby referred to his lectures on the subject, published 14 years ago, and desired that it might be understood, that everything said by him in those lectures on the subject of the phosphorus disease, might be taken as embodied with, and forming a part of his evidence now given.

Evidence.

Dr. Henry Letheby, M.B.

I have had much experience for 20 years respecting the diseases which arise from the use of phosphorus in the manufacture of lucifer matches, and within the last 18 months have had my attention particularly drawn to the subject on sanitary grounds.

A large number of persons, many children and young persons among them, some as young as seven or eight years, are employed in the manufacture.

The phosphorus disease is confined almost entirely to that part of a factory where people are engaged in dipping, drying, and packing the matches.

The packing is done almost entirely by women and children.

Many children and young persons are employed in assisting the man who dips; in carrying the matches to the drying room, and in packing them in boxes, after they are dried.

All these are dangerous processes, on account of the children and young persons so employed being exposed to an atmosphere charged with phosphorus.

Some years ago, when my attention was specially directed to the subject, I had an opportunity of witnessing the morbid effects resulting from this occupation.

The Lucifer Match Manufacture.

London.

Dr. Henry Letheby, M.B.

I found three classes of effects produced.

1. The local irritation produced by the phosphoric fumes upon the lungs, and bronchial membrane, and also upon the intestinal canal.

2. The cachectic, or wasting effects on the constitution generally.

3. The local effect on the jaw, constituting a disease called "the lucifer disease."

The first effect arose almost immediately, from the immediate application of the vapour inhaled to the bronchial membrane, and also through the saliva to the intestinal canal. It caused irritation, cough, and in numerous instances it accelerated, if it did not produce phthisis.

The irritation in the alimentary canal was characterised by purging, griping, and loss of appetite; and there was a good deal of irritation of the bladder and the kidneys in consequence of the phosphorus passing off in the urine.

The second class of effects followed on these; it was characterised by a great prostration of vital power, loss of appetite, and general wasting.

The third class manifested itself by pain in the jaw resembling toothache, which intermitted for some time and then became confirmed, when inflammation of the jaw, with abscesses about the gums, and finally death of the jaw took place. In many cases this has terminated fatally, and in others the diseased jaw has been removed by surgical operation. There is a case of this kind in the London hospital at the present time. It is that of a man whose jaw was removed by Mr. Adams a few days ago, and he is still in patient of the hospital. After the removal of the jaw he nearly died from secondary hœmorrhage from the diseased artery.

The manufacture of lucifer matches is carried on chiefly in the east of London, Whitechapel and Bethnal Green; and many cases have been brought into the London hospital at various times. There are manufactories at different large towns in England.

(Dr. Letheby here referred to the "Chemical News," from No. 84 to No. 89, the chief intelligence to be found on the subject in No. 87, page 75, and in No. 88, page 89.)

I have directed my attention to arrangements to be made for providing against danger. In those factories that I have visited, I have found that generally no special precautions are taken to prevent noxious results; no systematic arrangement made to separate the noxious from the innoxious parts of the manufacture, and generally no sufficient arrangement made for ventilation. At some of the factories, however, several improvements have been made with a satisfactory result. This is so at Mr. Hynam's factory, in Princes Square, Finsbury, where great attention is paid to ventilation; and at Messrs. Bell and Black's manufactory, at Bow, where the process of dipping is carried on in an open shed, apart from the other rooms, which are clean and well ventilated, and those engaged in dipping and handling the frames are protected by the vapour of turpentine which escapes from a tin vessel suspended at the chest.

It has occurred to me that three classes of improvements might be effected in this manufacture.

1st. The separation of the dangerous from the non-dangerous processes.

2nd. Conducting the dangerous processes in well ventilated rooms, and the observance of the strictest cleanliness on the part of the workpeople.

3rd. The use of prophylactics, or agents which will prevent the diffusion of phosphoric fumes, and their action on the human body.

One of the most important of these is the placing of saucers filled with turpentine in all the rooms and localities where phosphoric fumes are evolved, and the having suspended from the neck of the workmen, fitting upon the chest, a tin vessel containing turpentine, the vapours of which would escape from the open neck of the vessel and diffuse themselves into the air which is breathed, for I find that one part of the vapour of turpentine in 5,000 parts of atmospheric air will entirely check the evolution of phosphoric fumes.

The second prophylactic for neutralization of the effects of phosphoric fumes on the human body, is the use of alkaline drinks, and alkaline washes for the mouth, as a very weak solution of carbonate of soda.

The third prophylactic is in the use of a red variety of phosphorus, called Schrötter's phosphorus, which I find from experience does not give off any phosphoric fumes on the application of the heat necessary for dipping, and which has no action whatever on the human body. This might be safely used in the same way as phosphorus is used now; or it might be used as suggested by Mr. Lundstrom, of Johnkoping, in Sweden; viz., by putting the phosphorus portion of the match as a layer on the lid of the box, and so having it separate from the other chemical constituents placed on the end of the match.

I do not think the use of this phosphorus would be attended with any large additional expense; and I believe that if it were generally required, manufacturers would readily make use of it. I have heard manufacturers say they would willingly use the red variety of phosphorus, if there were a general regulation to that effect emanating from the legislature. And I have been told by manufacturers that they have used this phosphorus successfully, but have been unable to continue it in consequence of competition. As regards the price of the matches, the red phosphorus is a little dearer than the common variety, and there is more difficulty in employing it and keeping it dry. This, however, might be easily overcome if there were a regulation in respect of it, and the price of the matches would not be seriously affected.

In addition to the sanitary advantages resulting from the use of red phosphorus there would also be the advantage of less liability to fire from friction, or from a slight elevation of temperature in the premises where the matches are stored. In those instances where large quantities of lucifers are stored, the phosphoric fumes arising from them occasion annoyance and alarm to those who live in the neighbourhood; and there is a regulation in the city that only a limited quantity of matches shall be stored in a warehouse. I believe that sanitary regulations are enforced in Germany respecting the conduct of this manufacture, and the health of the workpeople engaged in it. One of these regulations is that persons with carious teeth shall not be engaged in the factory.

This regulation is a very important one, because it is established beyond all doubt that the peculiar disease in the jaw arises from the local action of the phosphorus fumes on the exposed bone of the jaw, where there is a carious tooth.

My opinion is that no one who suffers from any complaint in the jaw, or who has any carious teeth, ought to be employed in a factory of this kind; they should quit the factory the moment it is ascertained that they are so affected.

Means might be adopted no doubt to ameliorate the present evils that arise from the manufacture of lucifer matches; but I think that the whole force of the evidence derived from my reading and experience points to the use of red phosphorus as the most likely means of getting rid of the danger to health, which results from the manufacture as it is now conducted.

[Although the following evidence of Dr. Letheby does not relate to the subject now in hand, it is inserted here for the convenience of future reference, when the trades using the poisonous materials mentioned are under investigation.]

Green Papers, Wreaths, &c.

I know from professional experience that arsenical greens are largely used in the coloration of wreaths, dresses, paperhangings, and toys.

There are two classes of arsenical greens:—

The 1st is a compound of arsenic and copper (arsenite of copper), it contains 71 per cent. of white

arsenic ; it is called Scheele's green, Swedish green, Siskin green, and Parrot green ; and when mixed with lime which has been used in its preparation, the colour is somewhat paler, and the pigment is called Brunswick green, Neuwied green, Mountain green, and Pickle green.

The 2nd is a compound of acetic acid, arsenious acid, and oxide of copper (the aceto-arsenite of copper). It contains about 58 per cent. of white arsenic, and is called Schweinefurt green, Vienna green, Imperial green, and Mitis green. Both of these are very dangerous pigments, and are generally applied to fabrics in a very loose manner, so that the pigment is easily abraded as a fine dust. I have found that the quantity in the green leaves of wreaths averages about a grain of pigment for every square inch. I have seen a wreath with enough arsenic in it to poison 20 people. The green tarlatan dresses so frequently coloured with the arsenical pigment contain half their weight of arsenic, and that so loosely adhering to the dress as to be removed by slight motion or mechanical force, as the crumpling of the dress, or the brushing against a partner in a dance. I am informed that a Berlin physician has satisfied himself that a dress of this kind will give off no less than 60 grains of powder in the course of a single evening. This quantity of powder contains arsenic enough to poison at least 12 people.

I have known the dust from a paper stained with arsenical pigment to produce fatal consequences to a child ; it occurred at a gentleman's house in Clapton Square, Hackney, in November 1860, and I was requested by the coroner to investigate the facts. Two children of the same family became very ill, and one of them died. It was noticed that whenever the children played in a certain room covered with this green paper (sample produced) they became ill, but the cause was not suspected until the last illness, which terminated fatally. I have had frequent cases referred to me by medical men in which people have suffered when occupying rooms covered with paper coloured with arsenical pigment; and from the circumstance that they were unable to account for the symptoms, they have requested me to ascertain the nature of the pigment, in which I have invariably found arsenic.

I also know that men engaged in hanging such paper complain of the injurious effects of the poison, the pigment being abraded and inhaled during the process of papering.

As regards the green leaves of wreaths and the colour on paper, I have nearly always found that the pigment is arsenical, with the exception of the green paper hangings from the continent, which are not dangerous.

The Lucifer Match Manufacture.

London.

Dr. Henry Letheby, M.B.

I believe there is a regulation in several German States, and especially in Bavaria, expressly prohibiting the use of arsenical pigment in the manufacture of paper hangings.

There is an easy means whereby the presence of arsenical pigment may be discovered. The test depends upon the action of liquid ammonia on the copper of the pigment ; for copper is rarely if ever present in any green pigment without its associate arsenic. If, therefore, a drop of strong liquor ammoniæ is put upon the leaf of the wreath, or upon the paper, the liquid will acquire a bright blue colour if arsenite of copper is present ; and on exposure to the air the pigment regains its green colour by the evaporation of the ammonia.

Toys.

The same test is applicable to the discovery of arsenical pigment in children's toys, in which it is very extensively used.

It has also been used in the colouring of confectionery. I remember in 1850 that between 30 and 40 children were made ill by confectionery that had been sold to them at a cheap rate, by a Jew in Petticoat Lane. That confectionery was the refuse and broken stock of a respectable city confectioner ; and in 1850 I ascertained that within three years from that time there had been 70 cases of poisoning by coloured confectionery. This is mentioned as an illustration of the careless or thoughtless way in which poisonous matter is used as a colouring agent. In many cases it is applied to the object by children and young persons entirely ignorant of the danger attendant on its use.

I do not think there is any necessity for the use of these pigments, as, if the chemist were appealed to, he would readily suggest the preparation of colours equally brilliant, but entirely free from all dangerous properties. I have this day had put into my hands varieties of green powders, which are said to be entirely free from arsenic. Some of the dangers arising from the employment of children and young persons may be guarded against by the use of respirators, but the prime remedy is the total prohibition of the use of poisonous pigment in this manner.

EVIDENCE COLLECTED BY MR. J. E. WHITE UPON THE LUCIFER MATCH MANUFACTURE.

Mr. HEN. VINCENT GARMAN, of BOW ROAD, E., & Mr. CORNELIUS EDW. GARMAN, OF CARLISLE TERRACE, FAIRFIELD ROAD, E., SURGEONS.

London.

The Lucifer Match Manufacture.

Mr. J. E. White.

[Note.—The Messrs. Garman preferred to give their evidence jointly.]

We are in partnership as general medical practitioners, and have a large practice. During the last five years we have been employed as the medical attendants to the members of a club consisting of persons in the employ of Messrs. Bell and Black, lucifer manufacturers, at Stratford. During the three years previous to this period I, H. V. Garman, alone was the medical attendant of this club. We have just ceased to attend the club. During these periods we have been constantly applied to by patients from the manufactory, and the result of our experience is that several diseases occur more frequently amongst persons engaged in the above employment than amongst other persons of the same class.

The following occur to us as some of the most striking instances :—

(1.) Caries (decay) and necrosis (death) of the teeth. We should say that the majority of those engaged in this factory, *i.e.*, of those who have worked there for any considerable period, suffer more or less from these complaints.

In connexion with this, we have to speak of a more serious disease which sometimes occurs now—necrosis of the jawbones. We have known two cases of this. One of these lately passed from our care to the London Hospital. This is a very serious case, and we believe hopeless. We do not think it possible for the patient to live long ; his appearance is very painful. The whole lower part of the face is a mass of disease and running sores of a kind most offensive to all near ; he is utterly incapable of mastication. We believe he was employed as what is called a dipper. We believe that cases of jaw disease are mostly found amongst persons employed as dippers.

So far as we are aware jaw disease never shows itself unless the teeth are first decayed. If the mouths of

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

all persons employed in lucifer manufactories were periodically examined, say once a week, and any decayed teeth removed, we think this would do much to prevent the occurrence of jaw disease. We attribute these effects on the teeth and jaws to the action of the phosphorus.

We have heard that in France dippers are obliged to wear under their chins sponges dipped in some chemical antidote with a view of counteracting the effects of the phosphorus. We think that something like a respirator, covering not the mouth only but the nose also, might be beneficial for this purpose.

(2.) A second class of diseases which we have observed are those showing a general depression of the system, such as great lassitude, headache, a sallow and almost bloodless condition of countenance, indigestion, nausea, and pain in the chest. The nausea prevents those suffering from it from taking the amount of nourishment which is indispensable for the preservation of health in those engaged in so depressing an employment.

(3.) Another class of diseases which we have observed are affections of the chest. It is a common complaint for our patients to make, especially those who have worked as what they call "clampers," "I am clogged up with the phoss," meaning that they are suffering from a feeling of suffocation which they attribute to the phosphorus. This oppression of the chest is accompanied by general constipation, and also by cough of such a kind that if we did not know that the patient had come from the factory our first impression would be that serious mischief was going on about the region of the lungs.

From the great prevalence of affections of this kind brought to our notice we think that there must be a tendency in this employment to produce more serious diseases of the chest, such as consumption, especially in those persons who are at all predisposed to such diseases, but we have not traced any cases of phthisis to this employment. This may be for a reason which we will mention presently, which removed the more permanent cases from our care.

As a proof of the suffocating effects of the phosphorus we may mention that frequently when a patient from the factory, though having walked from Stratford, has come into our room the fumes given out by his clothes have been so powerful as to cause quite a feeling of stifling and faintness, and we have been obliged to leave the door open for a considerable time after his departure to air the room.

(4.) Diarrhœa is common amongst the people employed in the factory; and likewise

(5.) A disease called psoriasis, which is an irritating eruption of the skin of a very troublesome kind, and a disease called condylema which breaks out in irritating tumours about the private parts. The latter disease we have found, as far as we recollect, only in females.

(6.) Glandular swellings in the neck are common amongst the children. This is probably much brought on by a neglected condition of the teeth. Accidents occur sometimes in the factory by the lucifers igniting, and several cases of burns on the hands and arms caused by this have been brought to us. One was a serious case.

We do not recollect cases more serious than those of the kinds above referred to, but we treated patients mostly only temporarily. When a case seemed likely to be permanent, a patient would leave us, there being no provident fund to meet such cases, and would apply to the parish surgeon with a view of obtaining assistance from the parish, so that many serious cases may have occurred at the factory without being under our notice as such. In several cases, too, we have been obliged to insist on patients giving up their employment at the factory as the only means of saving their health.

If the people from the factory were drawn up like soldiers beside others of a like rank and age from the country the appearance of the factory people, as regards health, would present a wretched contrast to that of the others, though the sallowness spoken of above is not universal. On the whole, we are of opinion that the employment in a lucifer manufactory is very depressing and must tend to shorten life.

The ill effects would, in our opinion, be much diminished if the time for which persons, especially young people and children, are exposed to the influence of the phosphorus were shortened, and especially if it were interrupted by intervals of entire absence. The fresh air so obtained would supply the oxygen required by the blood, and dilute the influence of the bad gases inhaled during the work. If possible the children should be employed only on alternate days. If that could not be done, an absence of half a day would be a great benefit. In cases of the chest affections of which we have spoken, we invariably prescribe for children an absence from the factory of as much as 24 hours, and as much fresh air as possible. This is allowed by the employers. Formerly any one absenting himself for a day was liable to be dismissed. This treatment, with a dose of purging medicine, generally removes the symptoms, and we hear no more of the patient for months. It is difficult to say how long a child may be safely employed in such work.

This work being so unhealthy, it is of the greatest importance that young persons in particular should have a proper supply of wholesome food. A boy in the shoe-black brigade, being in the air so much, could do on half the food. No meal should be taken or cooked in the place where the work is carried on. During digestion absorption is more active, and consequently the phosphorus fume is then more readily taken into the system. Every one employed in the work should be compelled to wash his hands, face, and teeth before meals. Every one should likewise be compelled to change his clothes before leaving work, and also to wash. If the clothes are not changed the phosphorus with which they are loaded soaks into the body all the time.

We are not aware, from our own experience, of any chemical precautions which could be employed against the influence of the phosphorus fumes.

The factory of which we have been speaking is in an open and airy situation, and the ill effects of the phosphorus are no doubt much less felt, therefore, than they would be if it were surrounded by buildings as in London itself.

Also, we must say that, from our experience, Messrs. Bell and Black seem very kind to every one employed by them, and try as far as their power and knowledge goes to secure the health and comfort of their workpeople. They are always ready to adopt any suggestion made by us for this object.

At the same time we think it highly desirable that every factory in which people are employed in large numbers should be placed under a local medical inspector. This is of more importance where the employment is of itself dangerous to health, as we consider the manufacture of lucifers to be; and it is more necessary still where many children are employed, as in this case. Children are ignorant of the beginning of a disease and of the dangers to which they are exposed.

We have understood that the bad effects of the lucifer manufacture on those employed in it might be avoided by the use of the red or amorphous phosphorus instead of the white, but that this is objected to by manufacturers on the ground of its greater expense. We believe that the compulsory use of this red phosphorus has been much discussed in France.

MR. JOHN PEGGE, Fellow of the Royal College of Surgeons, and Surgeon to the Newton District of the Prestwich Union.

I have been in practice for nearly 30 years. During this time I have treated several cases of necrosis or jaw disease, or as it is call by the people themselves in this neighbourhood the "match disease." I do not recollect the exact number, and most of the Union books in which they are entered are not now in my keeping; but without any thought I can name half a dozen, three men and three females, one a girl, all

coming from the same manufactory. Three of these cases ended fatally, one of the men dying before the disease had run its course, apparently from exhaustion brought on by the continued and intense pain. I know of another case not under my own treatment which ended fatally.

I find four cases on the Union books during the two years, 1859 and 1860.

The sufferings of a patient in the earlier stage of the disease, and until it has run itself out leaving the bone quite dead and exposed, are intolerable. He will then take almost any amount of narcotics with comparatively little effect.

I have no doubt whatever that the cases which I have spoken of were caused by the phosphorus used in the match manufacture, but I cannot say in what precise manner the phosphorus acts. The patient complains first of toothache and wishes to have a tooth out. The face is then generally slightly swollen and the gums have a spongy appearance with a whitish margin. The disease I believe generally takes a long time to run its course. All my cases lasted I should say two or three years.

When the disease is once begun it seems so firmly established that it cannot be arrested. I have never known any case where it has been stopped. I doubt whether leaving the work would succeed, though of course it is worse to go on. One or two of the patients went off into consumption, brought on I think by the effects of the jaw disease working upon a weakened system. Probably weakness of system, and want of proper food and clothing, make a person more liable to be affected by the disease in the first instance.

I have seen the little children coming early in the morning from a distance scarcely half clothed and exposed to the weather. This must be very bad for them. They seem quite of the poorer class.

I have always understood that ventilation and cleanliness are of great importance in this manufacture. But I am not aware of any other precautions which have been used or are thought useful.

I do not know the habits of the workpeople, but if they eat and drink sometimes in their work rooms that is very objectionable indeed, and more so if the food is kept there for any length of time. It would be objectionable in any factory in which people are employed in large numbers, but it is especially so in a match manufactory, where there is so much noxious vapour in addition to the ordinary impurities of air in a crowded place.

Regularity of meal times is of great importance, especially to the young. It is very bad indeed for children to have to wait long for their meals, especially breakfast. The workpeople ought to be provided with the means of keeping themselves clean.

THOMAS TODD'S, BARNETT'S GROVE, BETHNAL GREEN ROAD.

This factory is all under one roof, a mere shed, about 30 by 20 feet; out of this one corner is cut off as a drying room, another as a store for the matches just made and packed; these are separated by loose boards. There is a low board ceiling, with lumber above. The air entering by the only door must pass between the dipping place and the door of the drying room. The only window is close by and does not open. There is, however, a wooden flap over the dipper, which was raised and let in some air; this made the dipping place far less oppressive than that at Waite's. About six men and 10 boys are employed here; but in places of this class the number fluctuates as well as the persons employed. Mr. Todd has had this place for seven years.

George Barker, foreman to Mr. Todd (who was absent on this occasion, as well as when I first called).

Has been at work in lucifer making for 15 years, *i.e.*, since he was 12, and nearly always about the dippings or something of that kind.

It is unhealthy work. Of course has his opinion, but has never felt the effects of it yet, but often thinks it must have an effect. Takes care of himself. Tightens his teeth with alum water once a week or so, and always slakes his mouth when he leaves work. Does'nt sleep in the same shirt. Changes his dress if he is going about. Cleanliness is everything. (This remark he repeated in much the same form several times.) Thinks that is how Bell caught it. (Bell has lost a jaw.)

Finds it difficult to get children who know the work. Can get plenty of others. They change about so. Has more in winter, 16 or 17 perhaps.

[Note.—This witness looks very pale and unhealthy.]

John Bell.—Has worked five years here and 15 years before that at a larger manufactory in the neighbourhood. Does anything that is wanted. Goes out with the cart often. Used to work in much the same way before. Has dipped; never for long; a few months perhaps.

Has lost the whole of his lower jaw. (This of course I could see before I spoke to him.) Lost it eight or nine years ago. It was bad eight or nine years first. It was very painful. "No one can describe "it if they don't know it; its like everlasting pain." Used to get hardly any sleep or ease of it. Has been in several hospitals,—St. Thomas', Guy's, Bartholomew's. His jaw was taken out at the last hospital. The doctors said he ought to have meat, but he could not eat it. Afterwards he used to have his food cut up very small and suck it. He cannot bite at all even now. The doctor says there is a bit of new bone. One doctor would not take out his jaw because he said there was a new one coming. Other doctors afterwards took it out, and the new one came along with it. The last time he took a piece of it out himself, and cured himself with cold water. Since then has been in fair health but not strong. "Oh no! I never shall be again."

For the last six weeks has had pain in his upper jaw. Went to the doctor about it, the doctor says he can do nothing but give him something to ease him. Has not much pain on him now. Used not to wash after finishing his work.

[Note.—This witness's articulation is much impaired. I looked into his mouth as well as the sunken narrowed opening would allow me; I could see nothing below; his upper teeth were almost entirely gone, anything left was all decayed; the gums swollen and shapeless, with little pits where the teeth had been, showing angry red flesh through.]

William Baker.—Has worked in a lucifer manufactory 16 or 17 years, *i.e.*, since he was 12. Has done different things, but never dipped.

Thomas Harrison, age 18.—Cuts the bundles and boxes them. Has done this three years; before that filled for three years. Gets better pay for his present work. The other is more wholesome. Doesn't suffer any way. Knows a good many that have. It's that complaint in the jaw. "We have had a many here." Knows two in the hospital now with it. Washes in the morning and when he gets home at night. Does'nt hurt his hand to put out the flame with it; it did at first.

[Note.—His hand is scorched and split. Teeth are good.]

Henry Clark, age 19.—Has worked at lucifers

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

for 10 years. Fills. Goes out with the cart. Does anything. Dips too. Never had a day's illness.

[Note.—This was a very quick fresh looking young man and had good teeth.]

George Harrison, age 11.—Here two months. Fills.

Goes on Sundays to a ragged school in Whitechapel, morning and afternoon both. Learns his lesson there. Doesn't know what it is. Can't read. Some one reads out and tells them to learn it.

William Selman, age 9.—Here three months. Fills. Goes to Spicer Street ragged school.

[Note.—This boy looked very pale and poverty stricken; he scarcely seemed to know his own name. I could get nothing from himself, and his companions answered my questions for him.]

John Bateman, age 6.—Doesn't know how old he is.

[Note.—His brother says he was 6 last March, and has been here three months.]

Christopher Bateman, age 10.—Is brother to last witness. Comes at 6 or 7 in the morning, stays till 6, 7, or 8 in the evening. Breakfasts at 7 or 8; dines at 1. But the times are not the same always. Brings his food with him when he comes. Stands at the bench where he works to eat. Does not have tea here. Works by the piece.

Takes home his wages to mother. She brought him here to get work.

His brother and he go to Cambridge Heath school on Sunday afternoon. Can read little words; his brother cannot. Brother has a little book and tries to read, and when it comes to his turn teacher calls him up to hear him. Witness's is called second class book. It is about God and Jesus Christ. Doesn't remember anything about it or who He was.

James Arnold, age 13.—Here three years. Fills. Comes sometimes at 5 in the morning, but generally at 7 or 8. Stays till the same time in the evening whenever he comes. Likes coming early best because he earns more.

Works by the piece. Takes wages home to mother. Came here of himself. Was at a larger lucifer place near, but left because he could not earn so much.

Brings his breakfast and dinner and eats them here at the bench. Eats and works too because he can earn more so. Can earn a shilling in a very long day. Sometimes earns only 6*d*. That may be when he goes out errands.

[Note.—This boy has one tooth decayed.]

Richard Harrison, age 12.—Fills. Goes home to meals, but has no fixed times. Sometimes all go.

John Arrowsmith, age 17.—Here three years. Cuts and boxes. Always was rather short of breath. Can't keep up long.

[Note.—His hand is burnt like the others with putting out the flame.]

LEWIS WAITE'S, WHARF ROAD, BETHNAL GREEN, N.E.

This is a very small place, employing about six men and 15 boys. It consists of two small sheds, one a mere lean-to, the other like a cart hovel. The latter is, I should say, judging by the eye, about 20 by 11 feet only, with no ventilation whatever. The door is at one end and the only window close by it. This place serves for both dipping room and drying room, as well as for mixing and heating the sulphur and the phosphorus composition. The dipper is helped in mixing by a small boy whom I saw beside him paddling the mixture, actually leaning over the dipping stone. The smell on entering this place is quite suffocating, and one would think unendurable for any length of time. The other shed does not adjoin to this, but is much of the same kind, without any ventilation, and is perhaps about 30 by 10 feet. In this all the remaining processes are carried on. A white vapour may be seen constantly rising from the matches. Of course places for washing, &c., could not be looked for here.

This description will give a general idea of the appearance of a large number of the smaller manufactories which I have seen.

Lewis Waite.—Has carried on this business here for seven years. Has worked himself for 17 or 18 years, as a dipper for 10 or 12 years. It never caught hold of his teeth. It does of some people. The dipping is the worst part. Never finds the work hurt his people. "It's not in these places that the harm is "done; it is in those great places. They make more "in an hour than we do in a day." Never saw red phosphorus.

Can always get workers when he wants. Could get 100 every day if he could employ them. "They "come bothering your life out all day pretty near." They are a lot that are always running about.

William Lovell.—Has dipped for six years. Worked at boxing for three years before that, and a year also at filling. Is about here all day. Of course does not dip all the time; that would be too hard work.

Brings his meals with him, and eats them in here sometimes. It is too far to go home. Always goes out to dinner. Suits his time of eating to his work. Cooks on that stove (pointing to that used for heating the mixture and also the dipping stone). Goes home as he is. Keeps no change. Only changes if he wishes to be tidy. Can see his dress shine in the dark. "Mine often shines."

"That boy (pointing to Edward Hills) is his hand. "He's the best little boy in the ship." He takes the frames from witness to dry. Witness never had a day's illness since he has been at it.

Works here all the year round, except when there is a day or two slack. Has had no toothache for seven or eight years. Has had one or two out because they ached. This was when he worked boxing at another place.

[Note.—This witness is not a healthy looking man.]

Edward Hills, age 12.—Has worked in here for two years. Takes frames from the dipper; sets them to dry; carries them when dry to the others to pack; often fills the frames.

Goes home to his meals at 8 and 1, and tea if he likes. Is paid by the day. Gives his wages to mother. She keeps him.

"Haven't been to school for this three years." Used to go on Sunday sometimes. Can't read. Used to learn a little spelling and got on very well.

[Note.—This boy has good teeth; I could see no decay.]

William Needham, age 8.—Has been here three or four months. Fills frames. Takes half an hour to do one. Gets a "farden" (farthing) for it. Comes at 7 in the morning. Stays till 8 in the evening. Has breakfast at 8, dinner at 1, tea at 5. Has an hour for dinner, half an hour each for the other two meals. Goes home for them just round the corner. Washes at home sometimes.

Used to go to school twice a day; not since he has

been here. Used to learn to read and write. Can't write his name, only short words like "man," &c. Never did any summing. "I know the figures, but "can't reckon them up." Goes to school on Sundays sometimes. They teach him to read. Doesn't know what the book is; it is a little one.

George Pain, age 8.—Just come here. Used to fill at "Todd's" (a neighbouring factory of a like kind). Fills frames.

John Illy, is over 13.—Has been here two years. Fills. Can fill a frame in five minutes. Gives what he earns to mother. Has earned 5*s*. in a week; mostly earns less.

William Hills, is over 13.—Has been here three years. Cuts the bundles and puts them in boxes. Has toothache sometimes. Has not had bad teeth.

[Note.—This boy's teeth were good.]

William Wright.—Cuts and boxes. Has worked at this 10 years.

[Note.—As he was cutting the bundle the friction frequently ignited it; I saw it do so three times running and many times besides. He extinguished this by pressing his hand on the flame for some moments; this is the only way in which these bundles are put out in these smaller places. The boys say it does not hurt them, but on examining their hands I have found the palms quite horny and split in consequence.]

William Horne, age 17.—Hasn't been to school since he came here. Doesn't go on Sunday. Can read words of one syllable; can write. Did "multiplication, subtraction and division." Three times five is 15; nine times 11 is 100. Doesn't know how he tells that. Scotland is a "village," a "town," a "country."

[Note.—A very stunted boy.]

Edward Brown, age 11.—Has been here 2 years. Comes in the morning at 7 or 8; goes in the evening at 7. Works for his cousin there (pointing), "He allows me so much money a week."

Never been at school in his life; can't read. Doesn't know who the Queen is. Has heard talk of her. Christ "was our Saviour, wasn't he? Sea is water. I don't know where it is."

HALSEY'S, BELLE ISLE, YORK ROAD, KING'S CROSS, N.

A wretched place, the entrance to which is through a perfectly dark room, much like a cowhouse, and after this through one end of a room stored with lucifers in small boxes, there being at the other end an open hearth with a fire burning. At the nearest end of the chief workshop, a long and fairly lighted but ill ventilated room, a man was preparing the materials for the composition; at the other end was the dipping slab. Between these are ranged the children at their benches. Beyond this is a room a few feet square, with a hatch opening on to the dipping slab, and also having lucifers stored in it, and beyond this again and opening from it is the last room, the drying room, close and hot from the stove where the mixture is heated. Nevertheless in this small room between the workshop and drying room close by the hatch, a boy and girl fill frames. In this drying room the late owner, Mrs. Halsey's husband, was burned to death a short time since in trying to put out a fire, said to have been caused by a child out of mischief. Accidental fires in drying rooms are very common. I have seen the traces on the charred wood, &c.

Outside at the back the arrangements are even worse. There is a water-butt with a little tub of sickly green water under it. Here, I was told, the children wash.

Beyond this, and running along under the windows of the workshop, is the yard, if that can be called so which is a passage a few feet wide, slightly broader at one end, filled in the middle with a stagnant gutter. I asked whether a drain was not stopped. "No" was the answer, "This is the water that comes down." Here the children eat their meals, unless it be cold or wet, when they eat them round the stove, *i.e.*, in the drying room.

At the end of this yard, with an open sink or cesspool in front of it, is a single privy common to all, boys and girls alike, and in a very bad state.

On one side of the yard was a little hay hovel in which a dog lived, but I could not make out that the children were allowed to eat their meals here. It would be much better than either of the other places.

While much of the evidence at this place was taken, Mrs. Halsey was near and frequently interrupted the children in their answers, and called away the dipper whom I was questioning, asking him whether "he had not done yet."

Barbara Halsey.—Her name is "Barbara;" does not know, though, what I should want with her name. She has "been mistress there twenty years." Thinks any attempt to make the children get any schooling a foolish business. She could not do without them. Could not get fresh hands. Thinks that if there were a rule that children might not work unless they went to school, they would sooner go without work. Thinks making any rules about the children a foolish business. It would not make much difference to her, though, as her hours are. The business only wants cleanliness. She is very particular about that with the children. Makes them wash.

Stephen Baker.—Is dipper here. Has been in the business 18 years in one part of it or other. Believes the dipping is injurious. It is not good to have others at work near the dippers. (He points to one child's place close by the end of the dipping slab.) It is a rumour about the trade that cleanliness is the best thing, and keeping the teeth tight.

Has found the effects of the work himself a little. His teeth get loose. Uses alum water to them every day. His brother lost his jaw from the work, and died of it. Another whom he knows lost his jaw from not being clean. Knows several that the work has killed (names several).

Thinks it quite right to have rules; it would be a great thing for the trade and make it more respectable. There is too much labour attached to all the business. There ought to be washing places everywhere.

The work is bad, but does not take effect for some time. Of course the masters will not allow that it is bad. Was holding an argument a day or two ago with a manufacturer as to what all this inquiry was about. Said it must be to inquire into the condition of the men. Had the argument because there had been papers sent all round the trade.

Anne Halsey, age 14.—Has been here 6 years. Works from 7 till 5; never later than 7. Fills frames. Has her breakfast at 8, dinner at 1; Has half an hour for each. Eats them in the yard. Washes her hands before meals.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

Only has cough when she has a cold. Has not toothache ever.

Works by the piece. Gives her earnings to mother. Her cousin "learns" her at home (*i.e.* in Mrs. Halsey's house) every evening.

Elizabeth Wombwell, age 15.—Has been here 7 years. Fills frames. Has meals the same as the last witness. Earns from 5*d.* to 7*d.* a day. Takes it to mother.

Esther Wren, under 15.—Has been here eight months. Was at another match factory before for three years. Has her meals like the rest; boils her coffee at the stove there (in the drying room). Has no cough; has good appetite.

Goes to school sometimes on a summer evening if she has done work early. Goes on Sundays. They teach her "about Jesus, and God, and that."

Sarah Butcher, age 10.—Has been here a year and a half. Has her meals like the rest. Has bad teeth; they hurt a good deal sometimes.

Goes to school every Sunday. Goes sometimes in the evening on a week-day in summer from 7 to 9. Can write her name. Three times three is six. Twice 5 is 10. They don't ask her questions like that at school. Writes figures on a slate.

Emma Butcher, age 12.—Has been here three years. Fills boxes. None of the children go home to meals. Has a bad tooth. It aches.

Earns 10*d.* a day. Works by the piece. Takes her wages home. Came herself to ask for work here. Can read hard words.

Maria Anne Butcher, age 8. (Sister to above.)—Has been here a year. Fills frames. Sometimes comes at 6 and stays till 7 in the evening. Goes to school in the evening and on Sundays. Reads "about what Jesus did."

Frances Blake, age 16.—Here one year. Has her hours and meals the same as the rest. Father cannot spare her to go to school. Goes when she can.

Mary Halsey. Age 12.—Has been here six years. Same meals as the others. Makes 5*s.* a week, about, sometimes 6*s.*, never less than 4*s.*

Has good teeth. Goes to school on Sundays; used to go on week days before she came here. Had a Testament to read from. Did not read about the apostles or Christ. Christ was kind to people.

Mary Anne Carter, age 18.

[Note.—This witness looked about 13. She had been at work there 9 years, and had not been to school in all that time.]

Sarah Ann Catlin, age 14.—Here three years. Fills boxes. Is not well sometimes. This began about a year ago. Feels "stuffed up." Does not feel so now. Feels it most at night times. Goes to school on Sunday night.

[Note.—This is a pale weakly-looking girl.]

Elizabeth Walker, age 17.—Here eight months. Fills frames. Never went to any school. Cannot read at all. Has not heard of the "sea," or "ships," or the "Thames."

Edward Craggs, age 10.—His sister told him the other day that he would be 11 next birthday. Does not know when that is. Fills frames.

Has his meals the same as the girls. No boys go home to their meals. Never hurries his dinner. Makes 6*d.* a day. Gives it to his sister. (He is an orphan.) Never goes to school now. Before he came here went on week days; never on Sundays. Used to read "about Jesus." Never used to write.

James Wombwell, age 11.—Here a year. Fills frames. Earns 6*d.* a day. Goes to school on Sundays. Before he came here used to go to a day school. Does not remember what he did. Can read a little. Cannot write or sum.

James Halsey, age 8.—Has been at work here three years. Fills frames. Gets 8*d.* a day. His cousin used to school him here. Does not now.

[Note.—His cousin gave this up "because he was so obstinate."]

James Blake, age 12.—Here six months. Has his meals like the others; always eats well. Goes to school on Sunday; reads "about Jesus and about God." Never did any writing.

James Smith, age 11.—Here one year. Fills frames. Gets 7*d.* a day; takes it home. Goes to St. Luke's Mission Chapel School on Sunday. There are 100 children there. Reads a little; spells it.

John Carter, age 12.—Here one year. Comes and goes at the same time as the others. Comes about 7; goes about 7.

Used to go to school before he was here. Does not remember what he did. Used to read out of a little book.

John Catlin, age 11.—Here 3½ years. Fills frames. Has toothache sometimes. Has had two or three out because they ached.

Never goes to school now. Before he came here used to go to school, week days and Sundays both. Forgets what he learned about. Did not do any summing. Does not know the figures.

Richard Brown, age 12.—Here two years. Fills frames. Works in the small room between the dipping place and the drying room; one girl works with him there. Has his meals when the others do.

Used to go to school before he came here. Does not go now. Three times 4 is — (does not know). Twice 4 is 8. Knows where the ships go; on a lot of water, that is in the sea.

[Note.—This boy has two bad teeth, and has lost one or two.]

William Halsey, son of Mrs. Halsey.—Has worked here all his life. Mixes the composition now. Never dipped. Never suffered at all from the work.

Used to try to get the children to a free school. They soon left off. They are not all a respectable class that make matches. Respectable parents will not let their children come and work amongst them. Has only two girls there who are at all educated (naming the two Butchers). When they first came they used to bring books and read them here, but the others laughed at them and they soon left it off. Thinks it would be impossible to force any schooling on the children.

JOHN BAKER'S, 2, ESSEX STREET, THREE COLT LANE, BETHNAL GREEN.

All the match making is done here, under the care of Mrs. Baker, by two boys in one low narrow loft, with hardly any ventilation but the door. On each side of the stove, which is at one end, far from the door, are two small drying rooms with open doorways into the loft. Close to this end was one boy dipping "bundle dips," the other working close by him shaking out the bundles, a most unhealthy employment. This boy, however, does any other work required out of the shop. Large quantities of matches are stored in the middle of the loft. The air, especially near where the boys work, feels loaded with phosphorus. It is a very objectionable place.

In a separate building a girl works at "stamping" wood shavings into proper lengths for making boxes.

Charles John Garner, age 14.—Has been here three years. Was at a toy maker's before. Dips, boxes, does everything. Comes in the morning at 7, stays till 6. When they are busy comes at 6 or 7, and stays at work till 10 or 11. He does not go home then to sleep. This is not often. Works by the piece, but

does not like stopping late. Would rather come soon and go soon.

Has his meals just as it happens to suit the work; generally at 8, 1, and 5 or 6. Is allowed one hour for dinner, half an hour the two other times.

Washes and changes his waistcoat before going home. Could not go in this because it smells so. Has lost his voice rather. "I don't seem to speak so much." Has got a cough. Does not know how he got it. Generally eats pretty fair. Has lost two or three teeth. The others ache sometimes.

Takes his wages home to mother. Makes generally 4*s.* 7*d.* or 5*s.* a week. Has made 7*s.* 6*d.*, or 8*s.* or 9*s.* Likes boxing the best. Does not care about dipping much. Means he does not like it.

Used to go to school. It is so long ago he cannot remember when it was. Is not much of a scholar now; wishes he was. Would do something else then. Can read a little.

John Garner, age 12.—Has been here a year and a half, and a year each at two other match factories. Often works down stairs making boxes. Comes and goes and has his meals like his brother. Cannot speak much either (I had noticed the hoarseness of his voice). Has very bad teeth. They ache all day and night sometimes. They began two years ago. Is not out of breath much, unless the place is full of smoke. He is then. That is when the bundles are rolled. It is quite full then. It is the "smoke of the steam." Can see his brother's clothes as well as his own shine very much at night. Sees him "like men all about." Gets 2*s.* 6*d.* a week. Takes it home. Knows his letters. Went to school for a year. "Mr. Rogers took my name once." That was for a holiday. Mr. Rogers was a very nice gentleman.

[Note.—This is a pale unhealthy looking, though quick and pleasing-mannered boy. His teeth are much decayed.]

Mary Ann Prancer (seems about 14).—Does not know how old she is. Lives in master's house and works partly as servant and partly in here at box making. Does that for her living and a shilling a week to clothe herself. Works here and in the house till about 10 o'clock.

Never was at school in her life. Does not know a letter. Never went to a church or chapel. Never heard of "England" or "London," or the "sea" or "ships." Never heard of God. Does not know what He does. Does not know whether it is better for her to be good or bad.

[Note.—This girl, though with no outward sign of stupidity, but on the contrary nice looking, seemed, as would be gathered from her answers, sunk in a state of mindless, hopeless ignorance, and to have no ideas whatever beyond her round of work, her 1*s.* a week, and her food and clothing. She has a mother and a home, but for some reason which I could not make out, does not have even the change of going there. It is hard to imagine how anyone, born in possession of reason, can have been kept so utterly out of the reach of learning anything beyond what her animal senses might teach.]

GREEN'S, GAYWOOD STREET, LONDON ROAD, SOUTHWARK.

I had the greatest difficulty in making out this place, a dwelling house in a small street of squalid buildings. At noonday two men had just stopped fighting in the middle of the street, one was making a loud drunken speech, and the whole street, men, women, and children, seemed to have nothing to do but to crowd round and listen or stare from the windows at them. Amongst these were women and girls of abandoned morality and shameless bearing, not confined to mere looks. Altogether a heart sickening sight, and one from which I was glad to escape. This is an extreme instance of the kind of neighbourhood in which small match-makers are obliged to establish themselves. I have been told, when inquiring for a name, "A match factory, is it? Oh, that must be at the back somewhere; no respectable place will take them;" referring, however, perhaps not so much to the character of the employment itself as to the danger which it causes to the buildings. A match factory cannot, I am told, be insured on any terms, though I have met with one exception. This caution must be very necessary. I was told by the owner of one small but very respectable place that most of his building was new, for the place had been burned down twice in the last few years.

No matches were being made at the time of my visit, and I was told are made but seldom, now and then only, by the man and his wife, who have a large number of children.

GRIMES'S, GUN STREET, BLACKFRIARS ROAD.

This is a place of the same character as the last; a small dwelling house, in a neighbourhood even more poverty stricken and loathsome to the senses. Clothes or rags were across the street to dry all the way along, and hand trucks with remains of most offensive fish, &c., together made driving an impossibility, and safe walking a matter of great difficulty. I saw in this street also at noonday a ragged woman staggering along with her head cut, and an equally ragged crowd round her.

When matches are made here, of which I saw a few traces, it is in the little living room, by the family. A long tear between the body and the skirt of the frock worn by the little bare-legged girl showed plainly that this was her only covering of any kind; and her mother was equally ill clothed.

HENRY WALKER'S, BANKSIDE, SOUTHWARK.

This factory has two departments, one down stairs for cutting wood for match boxes, the other upstairs for making matches. There were eight men and four boys, but no women or girls, at work when I was there. I was told there are often more. In the loft up stairs, which is very ill arranged and ill ventilated, the whole process of match making is carried on, with no kind of separation. The furnace is at one end, the dipping slab on one side, with a large pot of mixture left simmering upon it. The matches are "bundle dipped," and then shaken out by a little boy. While this was being done I could see the white phosphorus fume rising from the newly dipped matches in a cloud. I saw the same little boy carrying up sulphur to the furnace, and dropping the pieces into the melting pot. His mouth and nose were covered with yellow powder from "dusting out" the matches, *i.e.*, rolling was bundles in his hand to knock off the sulphur. At the same time and place something, dinner, as I the

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

told, was being prepared in a saucepan, and boiling out into the fire. I could not see whether it had any lid on at the time.

From what I had observed and heard at this place, in particular with reference to the conduct of the master, before I was invited up to the match room, I felt that I could place no reliance on any answers favourable to the condition and treatment of the employed, and therefore asked but few questions.

While I was questioning the boys in the upper room one of the men remarked in a loud tone, "This ought to have been done before now; it would have stopped some of it then." Before I went up, the boys, whom the proprietor wished to, and did, send down to me, brought with them an extremely strong smell of phosphorus.

Edwin Benson, age 15.—Comes in the morning at 7. Stays till 8 in the evening. Goes to school on Sundays.

Benjamin Gibson, age 13.—Same hours of work as the last boy. Has breakfast at half-past 8, is allowed half an hour; dinner at 1, has an hour; tea at 5, half an hour. Goes to school on Sundays.

James Mahoney, age 11.—has been here 3 years. Dusts out the bundles. Comes at 8½ and stays till 8 in the evening. Never stays longer. Has his breakfast before he comes. Has dinner at 1; goes home to it. Does not wash before he goes; could wash if he liked; could wash there in the can (pointing to some hot water kept by the furnace).

[Note.—This boy has decayed teeth, and is very stunted.]

William Pratt, age 9.—Here two years. Fills frames. Hours of work are from 8½ to 8. Breakfasts before he comes; has dinner at 1; tea at 5¼; leaves off work half an hour for it.

Goes to school at night sometimes; cannot read.

George Rowland.—Has worked in the business 22 years. Is dipper here. Has lost some of his teeth and had his gums lanced for swelling on them and his face. (Shows the place—a large gap.)

One day in the week he drives cattle by his own choice. The reason he took to it was "to blow some of "this nasty stuff off" him. All the men that he knows complain of that. When the disease first comes they think it's the toothache. Had a brother die of it. Knows a good many others who have died of it. Sometimes has tightness in the chest from it. His appetite is good, but not good in the morning. He cannot say it is. "If I did, I should tell you a story, "and you know that, Sir." Washes about every hour when he has done dipping.

Has heard of some inquiry coming. Supposes this is it.

CHARLICK'S, 5, GEORGE STREET, SPITALFIELDS.

The match manufacture, carried on here during the last year by the owner and his wife only, and never by any but adult labour, has been lately given up for another business. The evidence of the wife, however, seems to the point, and is given accordingly.

Maria Charlick.—Her husband, Alfred Charlick, has lately given up the match business. He never employed any children or any one not grown up. They did not consider it safe, partly because of the danger of fire, but particularly because young people do not know the strength of the work, or when they are injuring themselves. They will not keep clean, but will eat their victuals all amongst their work, and lay it down before them; that is the cause of half the mischief with the jaws. It is not a fit work for children at all. Would never let her own go into the place. Wonders how mothers can let their children go to such work so young; would sooner her own should beg their bread than go to it. That is what her husband always says, though he has been at it ever since he was 7 years old. But he has got such a "detest" to it. Whenever he dipped he always had a handkerchief over his mouth. That is proper you know. He would not speak the while; afterwards he always "slooshed" his mouth well out with water; he never used anything else.

It is very right that the children should be taken care of by law. Children are not now brought up as they were. The parents do not care what they do with them so long as they bring home money.

MESSRS. BELL AND BLACK'S, BOW BRIDGE, STRATFORD.

This is a carefully arranged factory, consisting chiefly of a long line of buildings of one story, well ventilated by side windows and doors, as well as frequent skylights all opened, fronting an airy yard. There are three dipping rooms, all well ventilated; two, lately built, especially so; the nearest to them at a distance of 30 feet or more from the nearest entrance to the main building. Adjoining of these are three drying rooms. The sulphur dipping room, again, stands by itself. The whole place feels fresh and airy. The proprietors seem to have taken great pains to make the place and employment as wholesome as possible. Some of the modes are more particularly referred to in the statement of Mr. Bell and of one or two of the other witnesses.

While I was there, viz. at 1 o'clock, all the working rooms were cleared at once for dinner, the people returning just at 2, as I left. Most went home or out, a few who lived at too great a distance remaining about the place. They are never allowed to eat in any of the dipping rooms, or the stove or drying rooms. The sulphur room is thought harmless, and I saw several sitting in that.

The main rooms, three in all, are very long; and though different parts of the work, such as filling the frames, putting the matches in boxes, and packing the boxes, as well as the making and cutting the wax taper to be afterwards dipped, have not each a distinct room, they are carried on as far apart as they can be in the same room. It is intended to separate them entirely, and I was asked if I could suggest any other improvements.

All the children are employed and paid directly by the proprietors, who say that no other plan is likely to be so free from abuse; and that this plan is especially desirable where, as in this business, the work is done chiefly by the piece, by children who take home their earnings to their parents. The books kept by the foreman afford ready evidence of the amount of work actually done by each child, and confidence is inspired that each receives the full payment to which he is entitled.

Altogether, this seems a most satisfactory establishment. The most important feature seems to be the system of reliefs from the noxious parts of the work.

Mr. Samuel Alexander Bell.—I have been engaged in this business 23 years and am a partner in the firm. I took these premises in order to have the space required by the Building Act. I was aware that the work was of an unwholesome kind, unless great care were taken, and I have therefore taken all possible care in the arrangement of the buildings, nearly the whole of which were built by myself, and in other ways.

Until two years ago I had never had any case of the phosphorus or jaw-disease amongst our workpeople; and I believe that we were the only large employers who could say so. After this two cases occurred: one very slight and cured in two or three months, the other more serious. This man has lost his jaw, but is now recovering and will soon be out of the hospital, and but little disfigured. This case was kept from our knowledge for a long time, or we should not have allowed the man to go on working.

The occurrence of these cases led us to make further inquiries as to any possible precautions. I heard that turpentine was a great absorbent of the phosphorus fumes, and made the dippers and the boys who attend to them and the stove (or drying) room wear little cans of turpentine round their necks. I had also found that whitewash had a great effect in keeping the places fresh, and we have had the dipping rooms whitewashed two or three times a week. Having heard lately that soda is very useful as an antidote to the phosphorus we make the dippers rinse their mouths out with soda and water every time they finish a set of dipping. But we have great trouble in enforcing these precautions, and have frequently to punish the neglect of them by small fines.

For nearly two years we have also adopted the plan of not allowing the dippers to dip on more than four days in the week, and employing them in the open air on the others, and also of making the boys who carry the frames from them to the drying rooms, or who are about the latter, work at some other employment every other week.

We also had two new and very airy dipping rooms built, so as to have three instead of only one, and use iron dipping slabs instead of stone, as iron absorbs the vapour so much less.

No other case of disease has occurred, and I am in great hopes that after all these improvements we shall be entirely free from it.

I have been in some of the best lucifer manufactories in Paris. They were not well arranged, being much like our inferior ones in England; but that was 10 years ago. I do not know what improvements they have there now.

I feel convinced that the system of changing the employment of the dippers and drying room boys is absolutely necessary to preserve their health.

It is also very important to separate each different branch of the work as much as possible from the others in which any harm can arise. I have endeavoured to carry this out as far as I can.

Some time ago I made a number of experiments with the red phosphorus. It was introduced into England 10 or 12 years back from Sweden and also by a German. It is a patent article, and the patentee has for eight or 10 years gone to great expense in trying to introduce it to practical use, but without success. I believe every considerable lucifer manufacturer in London has tried it and failed, as well as myself, to make it a mercantile article. It will not ignite unless kept perfectly dry, and therefore is less serviceable than the common phosphorus. From my own experience, and from that of others, I do not think it ever can be successfully applied. It it could, we should have adopted it, as I have understood that there are no bad effects attending its use.

I have a general idea of the Factory Laws. I do not think any regulations of that kind would in the least affect our business. All our hours, meals, &c. are quite regular already. I do not like employing young children, say under 12. They are often more loss than profit.

Nor do I think working overtime answers in the end. When people have worked too long one day they cannot work so well the next. That must be obvious to every one, from every day's experience, though we have so little opportunity of observing it here, as we hardly ever work overtime, except in some very rare case, as when a day in summer is so hot as to keep the wax from drying. The weather affects the amount of work done a good deal. More is done when it is fresh and bright, I find.

I do not know much about the education of the children; but as I employ so many, I subscribe to all the schools in the neighbourhood, and I believe many of the children attend them, but I do not know to what extent.

William Bush, age 17.—Has been here six years. Has been a dipper for the last six or seven months. His hours are from 6 in the morning to 6 in the evening. Does not dip all the time, but at intervals when a set of frames is brought to him; perhaps for about five or six hours altogether in the course of the day. Two days in the week is not allowed to dip, but works about in the yard at anything.

Wears a can of turpentine round his neck; always does so. (It was on when I saw him.)

Has breakfast at 8, dinner at 1. Is allowed half an hour for breakfast and an hour for dinner. Sometimes has his meals about here in the yard or anywhere except in a dipping or drying room. That is not allowed.

Every time he leaves off dipping, washes his hands and rinses out his mouth with soda and water. This is about a dozen times a day, perhaps, may be more, may be less. Always takes off his smock and apron when he leaves off work.

Has had very little schooling; none for 10 or 11 years. Can spell, but can't tell what it means till he is told. Can reckon a little. Twelve times 12 is 144.

Is quite strong.

John Smith, age 15.—Has been here five months. Works this week in the drying room. His business is to keep it tidy, pick up things if they fall, and attend to the stove. Next week he will work at something else. Never works in the drying room two weeks together. Is not in the room all the time, but in and out.

His hours are from 6 to 6. Earns 9*s*. a week.

Does not find the work hurt him at all.

James Wood, age 17.—Is just come here. Works in the drying room. Keeps it clean; looks to the fire.

His hours in the day are from 6 to 6. Is not in all the time. Is often "in and out." Doesn't find it at all close. "There's plenty of air about here."

Goes to school pretty often.

George Carter, age 17. Has been here three years. This week is in the drying room; another week "grinds." Grinds the composition in a shed over the way. It is ground by a hand machine. He looks to it. It is carried over here in cans. The others all take turns the same as he. When in the drying room always wears a can. Picks up matches and sees to the fire there.

Goes to a night school after his work. Can read and write. Reads from cards. Teacher comes and helps him, and tells him what it means. Doesn't know what it means till he is told it two or three times. Does then. Can write his "own name," nothing more. Does sums with three or four lines, that is addition. Does them right generally.

George Graves, age 15.—Here one month. Carries frames of matches from the dippers to the drying room and sets them up there. Works at this one week; another week does anything that happens. It does not matter to him which part he does. It does not take any effect on him.

Goes to the same school as the last boy. Not often. It is not often that he wants to go. He is "a good "scholar already." Can read hard words easily.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

Worked at the Abbey Mills before he came here. They are print works.

[Note.—This boy read off three or four lines of the *Times*, containing some long words, with ease, only making "Canadian" "Canadan."]

Daniel Sergold, age 10.—Has been here six months. Fills frames. Comes at 6. Goes at 6. Breakfasts at 8 here. Dinner at 1. Goes home for that ; has an hour for it. Knows when it is time because "Dan'l" comes and tells them. Dan'l overlooks them there.

Takes home his earnings, 2*s*. a week perhaps. May keep 4*d*. for himself.

Used to go to school every day till he came here. Does not go now except on a Sunday. Goes then from 11 to 1. Never goes to any church or place like that. Used to read without spelling. Can sum. Three times 6 is 17. Twice 9 is 18.

Betsey Jewell, age 10.—Has been here nearly three years. Fills frames. Comes at 6. Goes at 6. Has her breakfast and dinner at the same time as the rest, and stays as long. "Dan'l" comes and tells them when it is time. Must go then. "He wont let us "fill at breakfast time." Takes her earnings home. Mother gives her a halfpenny every Saturday out of it to spend.

Goes to school on Sunday. Used to go on week days when she was "a little girl." She went for nine years. Is quite sure it was for nine or eight years. Can't read ; could once. Can't spell "c-a-t."

Joseph James Bowthorpe, age 11.—Doesn't know his Christian name (he asked his neighbour). "They "call me Joseph at home." Has the same time for his breakfast and dinner as all the rest.

Goes to school on a Sunday. Used to go on week days for six months ; not more. They made him read.. Cannot read now at all. Cannot write.

Emily Chymist, age 14.—Has been here four years. Fills frames of wax matches. Can fill 20 a day. Gets three farthings for each. Each frame has about 60 rows of matches, with 50 matches in each row. Takes the money home to mother.

Goes to school on Sundays sometimes. Went on week days before she came here. Can't read at all. Can't write. Four and five are 10 ; 20 and 20 are 40.

Jane Randall, age 11.—Fills frames. Has her meals at the same times as the rest ; in here or somewhere about. Knows when it is time because they turn out from the factory at the far end.

Goes to Stratford church to school on Sunday. Never went on a week day. Never could read.

Charles John Fisher, age 14.—Fills. Has been here five years. Has his meals when the rest do. Has his dinner in the yard. If it is wet, has it in here.

Used to go to school till he came here. Goes on Sundays sometimes. Never goes in the evening of a week day. Can read a very little. Can "write my "own name." Goes to church if it rains.

GEORGE EVANCE'S, SOMER'S TOWN, GARRATT, WANDSWORTH.

This factory, just built for the purpose of the business, standing quite in the country, with garden and fields all round it, consists of three detached buildings of one story. The "wax-room" is long and well lighted, but the windows do not open. The roof, however, is only of tiles, and a wooden shutter or two at the back may be taken down if wished ; still the ventilation might be improved. Women, girls, and three or four boys are engaged in this work.

The second building, roofed with corrugated iron, with large and effectual ventilators in the roof, contains an ante room where matches are stored and packing done ; on one side a room where boys fill, on the other the drying-room, and the dipping-room at the back. There is a doorway without a door from the filling room, opening straight upon the dipping slab. There seems no occasion for this. In a third building, a shed at some distance, is a saw for cutting the bundles of wood matches.

The place is both from situation and construction extremely airy and is very clean, and shows what a match factory may easily be made, at least where there is sufficient space available, which is of course but seldom the case in the middle of towns, where factories are usually placed, in consequence of the difficulty in getting elsewhere the number of children required. This difficulty is found by the master, and forms in his mind the only obstacle to enforcing an amount of education on the children.

Mr. George Evance.—Has worked in the business many years, but has never suffered in health. The places he worked in were all well arranged and airy.

Uses a good deal of red phosphorus in parts of his work. Is getting more into the use of it. His chief reason is because it does not smell so much. Cannot use it in every part of the work. When it does suit he uses it. It does not ignite so freely ; but keeps as well as the common.

Thinks that any restrictions on the labour of children and young persons, if they had to work less time than at present, would affect his work in this way :—When busy he should have to employ a greater number of hands ; when slack, to turn them off. Should find a difficulty in getting more hands ; cannot do so at this moment. There are none about at this time of year (May). Can see no objection to the children going to school, if the time were well arranged ; but of course could not have his work stopped. Lets the hands come from 6 to 6 or 8 to 8, as they please. If some come at one time and some at the other it does not matter or hinder the work. Of course if the children could go to school it would be much better for them.

Louisa Vincent, age 14.—A month here ; a year at Bell's. Empties frames and boxes the matches. Comes at 7 or 8, generally here at 7 ; stays till 9 or 10 in the evening, usually till 9. Has breakfast at 8 ; has half an hour for it. Dinner at 1 ; has an hour. Eats them at her bench here. Washes her hands in the bucket there (pointing to some belonging to the steam wax boiler). Has a sore throat ; is hoarse. It does not hurt her much. Got it lately.

Takes her earnings home ; gets none for herself. (This seems to be a mistake, as Mrs. Evance had 2*s*. 8*d*. of hers which she was saving.) Another girl first brought her here.

Goes to school on Sunday. When at Bell's used to go to a night school. Never went to a day school. Can read. (Reads very slowly). Can write a little. Eleven and 11 is 22.

Eliza Cheeseman, age 10.—Comes at 7 or 8 ; goes at 7 or 8. Breakfast at 8, half an hour. Dinner at 1, an hour. Both either here or at home. Tea at 5, half an hour. Washes in a bowl here. Earns 2*s*. a week. Gets ½*d*. or 1*d*. for herself.

Goes to school on Sundays sometimes. Till here used to go to a day school. Can read. (Reads fairly.) Can write ; but not many words. "Used to add up and put a cross." Three times 11 is 32 ; is 31 ; is 34. Reckoned that by reckoning 3 times 10, and knowing it would be a little more.

Henry Hendon, age 12.—Fills frames in the wax room. Comes here at half-past 6 ; goes at half-past 9 sometimes, or half-past 10. Has breakfast at 8, half an hour. Dinner at half-past 12, takes half an hour. Tea at half-past 6 or 7, takes quarter of an hour. Has them in here ; sometimes goes home to them.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

Goes to school on Sunday. Went on week days when he did not work. Can read words of one syllable. Can write figures, but not letters. Five times 5 is (at first says he does not know, after a long time says) 25. Goes to church on Sunday.

George Hendon, age 14.—Is brother to Henry. Comes to work, goes from it, and has his meals the same as his brother. Does not leave off here till about 1; knows it is 1 because he looks at the clock. Takes home *5s*; gets *2d.* of it for himself.

Has been at three print factories; used not to go to school at any of them. Is sure he did not. Only went on Sunday; never on a week day. Cannot read at all. "My brother has had more schooling than me."

James Bennett, age 17.—Was four years with Mr. Evance, in London; came here with him. Helps him dip, or does anything that is wanted. Is as often out as in. Comes at 7, stays till half-past 7 in the evening; sometimes to 9, not often. Has breakfast at 8; has half an hour or more. Dinner at 1, an hour. Tea at 4, half an hour. Washes in a pail after dipping. "You must keep your hands clean; it stinks so much," Does not feel the work here; used to do so in London. It choked him. It was closer there.

Used to go to school a little once. "Can't read any." Can spell a little. Cannot write. Can do no figures. Never had any try at it.

Sarah Chance, age 16.—Was at Bell's 18 months. Used to clamp-fill, and empty them. Does the same here. Comes at 9 or 10 in the morning; goes at 7.

Goes to school on Sunday. Before she worked she went on week days. Can read easily. Can write; not much.

GEORGE CHARLES GRIMES'S, SOUTH STREET, WANDSWORTH.

This is a small manufactory, consisting of one clean airy shop in an open space, devoted to a single operation, viz., the insertion of a small wire into the end of splints, afterwards used for cigar lights, at an adjoining match factory, to prevent the composition from breaking off when lighted; a clean and harmless employment. The place seems extremely well managed. Only girls are employed. All looking very respectable, clean, and happy.

An evening school is held in here in the winter evenings for these girls, and as many others as can be induced to come. Last winter there were, I was told, as many as 150 names on the books at once. A gentleman, the clergyman I believe, gave a supply of excellent school books, &c., for the school. There was a short prayer for the children on a card hanging on the wall.

These facts speak highly for the energy and intelligence as well as the other good qualities of the proprietor, who was formerly foreman at the neighbouring match factory of Messrs. Bell and Co.

Harriet Tidbury, age 13.—Her hours of work are from 6 to 6. Has breakfast at 8 (half an hour). Dinner at 1 (an hour). Has them in the room. Has tea at home after work. Goes to school on Sunday. Comes here on a winter evening. Can read well.

Mary Matthews, age 11.—Works from 6 to 6. Never longer. Meal times same as the last girl. Goes home to dinner. Her little brother brings her breakfast here. Three other girls go home to dinner. All the rest have it here in the room. Earns *2s.* or *3s.* a week. Gets *1d.* or *2d.* of it for herself.

Goes to school and church on Sunday, and comes here in the evening in winter.

Sarah Driver, age 13.—Just come. Has her meals in here, the same as the rest. Goes to church and school on Sunday. Used to go to a week day school before she was here.

Mary Jones, age 13.—Here 8 months. Hours of work from 6 to 6. Meals the same as the others. Takes her wages home. Sometimes get something for herself.

Sometimes comes to school here in the evening. Used to go on week days before she came here. Can read, write, and do sums. Can "do bills of parcels best." Does them at home; that's why. Does "long division," and "fractions." Is sure she has done fractions.

MESSRS. BRYANT AND MAY'S, FAIRFIELD, BOW.

These are spacious airy works, with much open ground all around forming part of the premises. They are in fact far removed from all other buildings, except a portion of the same works now cut off and used for another purpose. There is nothing unpleasant or objectionable here. The manufacture carried on here differs from that at other places inasmuch as no common phosphorus or other offensive ingredient is used, and consequently the arrangement of the different branches of the work does not seem so material. The works, too, are only just established, and only partially completed.

All the processes, with the exception of mixing the composition and drying the matches when dipped, which are carried on in small rooms opening from the side, are conducted in a long shed-like building, cut into compartments by wire caging. When a larger portion of building is ready the boys will work in a part cut off from the girls by a party wall, and separate closets and washing places are being provided for each half. The building is of one story, broad and high, open to the slate roof, which rests on iron girders, but it seems to depend for its ventilation upon its doors, the skylights, which afford the only light, not opening.

In the middle of the building is a raised reservoir of water for the purposes of the work and in case of fire.

Along the wall are pegs, each with a number to it, on which the children and others hang their bonnets, coats, &c.

Part of the manufacture consists in painting a composition, in appearance only much like the common composition, upon the sides of the match box. This is done by young women and girls, who are all provided with large strong leather aprons to protect their dresses.

When a child has finished a frame or a piece of work he takes it and receives a counter in exchange, and brings his counters at the end of the day in order to prevent any mistake in payment.

Altogether this seems a very nicely conducted place. The children appear very happy and contented, and seem without exception much to prefer their employment here to that in other lucifer manufactories, in which most of them seem to have been engaged more or less before. They give

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

various reasons, mostly that this work is "not so nasty," "has no steam," or that they earn more or are better treated here. Just as I arrived, 1 o'clock, a bell rang and the children rushed out as if from a school; I was there when they returned at 2.

The manufactory has only been at work 4 or 5 months, so that no child can have much experience of it, some had been there only a few weeks, some a few days only.

Mr. William Bryant.—I am one of the firm. I have no personal experience of the common mode of match manufacture, but have understood that it is injurious to the health of those employed in certain parts of it, and have been informed on good authority that in one large factory out of London during the last 20 years the deaths from *necrosis* of the jaw have averaged one a year.

I believe that the disease is less common now than formerly. I think this arises from the character of the business having been raised by having passed to a higher class of employers. These naturally bestow more thought and care on the welfare of those in their employment, and are more able and likely to adopt all useful precautions.

The mode of manufacture carried on by us is, I believe, perfectly free from any injurious influence upon the health of those engaged in it. We do not use the white or common phosphorus at all. The only phosphorus used is not in the match, but applied to the surface of the outside of the box, on which the match is rubbed, and this phosphorus is of the red or amorphous kind, which is I believe perfectly harmless, and is not a poison. The price is greater than that of the common phosphorus, the one being 4*s.* a lb. the other 2*s.* 6*d.* If it were used, the increase in the price of the manufacture would be very small.

I do not think that foreign competition need be feared in matches. The proportion of the English made as compared with the foreign made, consumed in England, has increased greatly within the last few years. This is owing perhaps to the increased manufacture of the wax lucifer.

Any reasonable restrictions on the labour of children and young persons employed by us as to hours, age, meals, &c., would not affect us in the least. They would leave us very much as we are already; at the same time, in our case I think them unnecessary. The labour of all employed by us is perfectly free, and we do not allow of any sub-contracts. These are likely to lead to abuses, as the contractor wishes to clear something from the transaction in return for the trouble, and in some degree responsibility, which he incurs. Such restrictions might perhaps interfere with the small employers.

We find that we can always get as many hands as we require. It is not skilled labour, though some from practice will do three times the amount of others.

I have never turned my thoughts much to the effects of legislation with reference to labour. If desirable at all it can be so only with reference to children and young persons.

I have been in Sweden, and know the factory of Mr. Lundstrom there. The people in Sweden are very well educated. You hardly meet a child of, say, 5 years old who cannot read, and if a little older, who cannot write. I believe that this arises from the Government enforcing a certain amount of education as a necessary qualification for many civil positions as, *e.g.*, I believe even for marriage.

In the manufactory of Mr. Lundstrom no one is allowed to continue in a dangerous or disagreeable part of the work beyond a certain time together, a month I believe. He is then relieved by another, and so on.

Mr. Francis May.—I am a partner in the firm of Bryant and May, of Whitechapel Road, E., and Fairfield Works, Bow, E. We are importers, and keep our stores here (Whitechapel Road), but have just taken our works at Bow for the manufacture of a new safety match, of which we are the patentees for the United Kingdom. Having started this business so lately, we have not yet many children or young persons employed there. I do not superintend that manufactory much myself.

The manufacture of matches with the common white phosphorus in the ordinary way gives rise to the very painful disease, *necrosis* of the jaw. But from the general testimony of manufacturers I believe this is much less prevalent than it used to be, in consequence, probably, of the disease being now well known, and measures taken to secure good ventilation, which is of great importance.

I have had opportunities of observing the manufacture of the common lucifer in different works in Sweden, amongst others at the works of Mr. Lundstrom, an intimate friend of mine, which are very extensive. The common or white phosphorus was used in Sweden, but I never heard of much injury arising from it there, or of any disease amongst the people employed. This probably was owing to the way in which the work was conducted. The Swedish people are very intelligent and orderly. The people in the work were as clean as pins. The works (Lundstrom's) are very spacious and thoroughly well ventilated, having high air shafts placed in the roof for the purpose. They have a very long frontage to the shore of a lake, and so get plenty of fresh air. The cleanliness of both place and people was remarkable. It was, I believe, insisted on by the proprietor. He is a very superior person. There are 500 or 600 children employed there. All went home for their meals. All noxious parts of the manufacture were kept quite distinct from the main building. This was possible owing to the great extent of space available. While I was there all the children had a fête given to them in a nobleman's park. We employ now nearly 1,000 hands in the manufacture at one place in Sweden, and nearly 500 in another.

Mr. Lundstrom was the inventor of the improvement used in the patent match, which contains no phosphorus whatever, but the amount of labour already employed by him being so large and it being difficult to procure there the additional hands required for setting on foot a new manufacture, we purchased the invention from him. Another person has purchased the right to use it in France. No amount of friction against any substance, except that prepared for it, which is placed on the box, will make one of the patent matches ignite, nor has it any smell or any poisonous quality, nor is there any poisonous or dangerous ingredient in the prepared surface affixed to the box. The white phosphorus is a deadly poison.

Three persons were poisoned in France by some lucifers which had got into a coffee pot somehow or other. There have been numerous cases of a like kind in France. Many are collected in a book, I believe.

The red or amorphous phosphorus could be employed in the manufacture of matches instead of the white. If it were, the manufacture of matches would be perfectly harmless, nor would there be anything like the same danger of fire. It costs, however, much more than the white. Nearly double, I believe. But even so the difference of cost would be inappreciable to the consumer, and very slight to the manufacturer.

In England the division of labour has been carried a good way in the match manufacture. The making of boxes is sometimes carried on as a distinct business, the making of the splints as another.

At the manufactory in Sweden, of which I have been speaking, there was a system at work which I think very important. A school was provided in the establishment, and all children employed there were obliged to receive instruction for a certain time every day. I do not know exactly for how long. The advantage of this to the mind is obvious.

It is also my own experience, and I believe that of all large employers, that the best educated workpeople are likewise the most efficient, the most economical, and the most respectful and attentive servants. We find that we can make very little of the poor young women

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

whom we employ in another business here. Most of them have no education. They are only fit for the most mechanical employment. If we find one decently educated we find it to our advantage to put her at once into a superior place.

But, besides this, there is a very great advantage in a sanitary point of view in the system of schooling enforced on young children, of which I have just spoken, in this manufacture in particular. The supply of fresh air, which the interval of school time gives, does much to counteract the noxious vapours inhaled during the time of work.

We receive here every year a report of the progress of the school. These reports are highly satisfactory, and we believe the school does a great deal of good.

Mary Ann Baggin, age 9.—Has been here a week. Has her breakfast before she comes here; her tea after she gets home. Has her dinner at one, in the grass square at the back (quite large).

Was three months at Bromley School, Sunday and week day. Read a little book through there without spelling it. Knows more summing than reading. Ten and 10 are 20. Sometimes she couldn't go to school because "I had to mind my baby while mother was away."

Elizabeth O'Brien, age 12.—Doesn't know how old she is (her sister says). Came here last week. Used to go to Stratford School, day and night. Went to church too. Can't go to school now. Has no time for it.

Mary Ann O'Brien, age 12.—Here a fortnight. Is sister to last witness. Went to a night school when she was 6 or 7. Cannot go now.

Margaret O'Brien, age 14.—Came yesterday. Has been to a day school.

Eliza Smith, age 12.—Came yesterday. Had been at Taylor's match factory five weeks. At Bell and Black's (another factory) two weeks.

Before then went to school on week days and Sundays, but that was ever so long ago. Did some summing. Some lines of figures came to 20, others to 30, perhaps. Three times 5 is — (does not know). Four and 4 are 8. Father tells her to go to school again on Sundays now. Learns to read and sing there.

Sarah Ann Patrick, age 13.—Has breakfast and tea at home before and after work. Goes home to dinner. Many dine here in the empty part of the buildings or out in the yard.

Used to go to school week days and Sundays. Only goes now on Sundays sometimes. Used to go to Bow Church. Heard the gentleman preach about God's Holy Word.

Richard Chidleigh, age 13.—Here some months. Used to go to another large lucifer factory for 1½ years. Used to fill there. Sometimes carried frames to dry. Likes this best. "It aint such dirty work here." It was the carrying in to dry that he did not like. There was such a nasty smell in his mouth from the steam. "Yes," the smell was in his mouth. It did not make him ill. It did those that had been at it long. They had the "flute." That means their jaw swelled, and they had it cut out. He might have had it. He would not stop at it long.

Goes to school every night now; gets home quick from work, and goes from ¼ to 8 to 9; can read, write, cipher. That ("child") spells "behold." Three times 7 is 9; is 21. Earns 1*s.* or 1*s.* 3*d.* a day.

George Fawcett, age 12.—Here a few weeks. Takes frames to the drying room; never did that before. Was at another match factory. Master gave him the "sack" because he was not quick enough; would not let him stay. Before that was at a glass-blower's. Earns less here than there. Likes this better than anywhere.

Used to go to school.

Charles Doyle, age 15.—Has been here from the first. Fills frames. Makes 6*s.* a week; once made 9*s.* 3*d.*, but then all the others were not come. Generally leaves at 7 in the evening. Once stayed till 9. Goes on Saturday at 5.

Used to go to school, weeks and Sundays. Had to learn his lesson. Could not read it. First they asked him to spell it. Then showed it to him. Could spell it then, not before. (Spells "cat.")

James Cawdron, age 10.—Fills frames. Worked in same way at Stratford when he was 8 till he was 9½. Has never been at school in his life. Has heard talk of the Queen.

Michael Corfield, age 11.—Was at Bell and Black's one year, and before that at some chemical works. Goes home to dinner at 1. A bell rings then. When the bell rings they all run. They do the same in the evening. Runs off if his frame is only half finished. Went to school till he went to work; not since.

Peter Eden, age 14.—Here four weeks. Was at another match factory for three years. Used to box the matches. Likes this place best. Earns more here; viz., 6*s.* a week. Is better in health here. He had ear ache and deafness. It was not in his face. Thinks it was the steam of the "compo." His chest was bad. "Couldn't draw his breath hardly." Was so nearly every day there. Was not so before he went there. There were a good many ill there. One who put the frames in the rack had his jaw cut out. Is quite well here.

Used to go to school before he was at work. It is too far here.

John Murray, age .—Was at a match factory the last two years. Used to fill frames. Sometimes carried frames to the drying room. Likes this place best. They are more kind to you here. There was always smoke and steam of the phosphorus there. Did not like it because it was poisonous. One man had his jaw out.

[Note.—This boy has several bad teeth.]

Daniel Danney, age .—"You haven't taken my name." Was at the same factory as the last boy two years before he came here. Used to fill frames and box matches there. Has been bad winded for two years.

[Note.—This boy has several bad teeth.]

Clara Connor, age 16.—Was at Hynam's factory three years. Used to pack the boxes in paper. It used to suit her health.

Mary Sullivan, age 13.—One week here. At Bell and Black's for three years. "Got the sack" there for meddling with another girl's matches. Used to fill wax clamps.

Has got the tooth ache; three ache. Has had two black eyes with it, with the swelling of it. Has not been well with it these three years.

[This girl seems to have much trouble from her teeth. Her face was swelled, and she started when it was touched, saying it hurt. There was slight blackness towards the eyes, as if the remains of a swelling.]

Esther Stroud.—Was at Bell and Black's. Is not well. Something pricks her inside.

Used to go to school; only goes on Sundays now. They "teached us hymns," to say and to sing them too. Used to do "addition" and "subtraction." Three from 5 is 2. Three times 4 is — (does not know).

George Gardner.—Is overlooker here. Has worked in the business ever since he was 16. Dipped for 15 years of this time. Used to feel it in his chest very much. Thinks that was partly because when he was quite young he used to be out late and come in and lie down in the factory. That was very bad. Thinks partly too it was the sulphur dipping. That was very hot work. Used to get in a "muck sweat" and then go out and catch cold so. Worked at Hynam's till he came here. That was too high. It was not a good building.

Has known many bad from the work. One lost his

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

jaw. "You could take his chin so (showing) and "shove it all into his mouth." Has known several die from the "phosphorus on their inwards." Has known 18 or 20 lose their jaws. But people are very different. Some are seized in four or five months. Knew one of 17 who was. Has known his own self 11 or 12 who have died from their jaw or their lungs. Other people might die of their lungs too. But the doctors said these had it from the phosphorus.

Cleanliness is the great thing. It is very important to wash; always did it himself after dipping. Used to search his mouth with water and "goggle" his throat out. Some people are very dirty. One used to wash the basin for witness. Has seen him after this with his hands all plastered with the stuff eating his bread and butter, and take it all in together; this man lost his jaw after two years. When dipping witness used to blow the steam away first and then breathe; so did all the rest. Used to put a piece of tobacco in his mouth; thought that was good. Is well now except when he has a cough sometimes. Feels his chest then.

[Note.—This witness does not look at all strong, and speaks feebly. He has all his teeth, though with many black places. He says they give no pain and thinks what looks like decay is the tobacco.]

GEORGE CHRISTOPHER STOKES', ELISHA'S YARD, OLD BETHNAL GREEN ROAD.

This manufactory is well arranged, the buildings consisting of a long low line of one story, divided by party walls into separate compartments, each opening to the outer air, with one exception noticed below. One is the office and serves also to keep the chemical materials; in another the lucifers are stored. The melting room for sulphur is very well ventilated, and is attended to solely by two young men. This is near the dipping room, and the same young men carry the matches from the dippers to the drying room. No one besides these two and the dippers meddles with the composition.

The room where the greater number of the boys are employed in filling and boxing is a good airy room, but the entrance to it is through a small dipping room which forms a kind of lobby to it, and out of which is a door into the drying room.

In the room where most of the boys work there are stuck up two copies, printed in large letters, of rules for the conduct of the boys as to playing with the matches, using bad language, disorderly behaviour, &c.

In a separate building across the yard is a shop for cutting wood for match boxes. These materials are given out to women and made up by them at home.

In another part of the yard is a separate building with a number of very neatly arranged waterclosets, &c., some being kept for the foremen and other men.

The owner seems anxious in every way to promote the welfare of his people.

Mr. George Christopher Stokes.—Was born and bred to the business. Has been a master ten years. Five years ago had to move to his present place in order to have the clear space required by the law in the case of such manufactures. Has been a dipper himself. Knows of evils arising from the work. Means this jaw disease. It all depends upon cleanliness. Those who have it are a dirty lot. Insists on his people being clean and tidy. Never had any laid up; so has no doctor to attend his place. Has a rule that all his people should wash on leaving work. Hot water is got ready for them. Most of them, he believes, wash their hands before meals.

The times for meals are half an hour for breakfast and an hour for dinner. Most of them go home. A few stop and have them in the yard if fine, or in one or two spare rooms.

Restrictions as to time &c. would not hurt his business in the least. He likes regular and moderate hours. Does not think foreign competition would interfere with him at all. He makes for London use chiefly.

Believes a few of his children go to evening schools, but does not know much about it. His people are all very respectable. He will not take any others. Likes to keep old hands if he can. Can get new whenever he wants them.

The vapour pent up in the drying room is what injures the health so much. Another very bad thing is smoking while at work. He would not allow a man to smoke on the premises, but would turn him off at once.

Thomas Stokes, age 10.—Fills. Goes home to meals. Goes to school on Sundays. Can read and write; cannot write his name.

William Rainbird, age 13.—Has been here a year. Comes in morning at 6½ or 7. Has breakfast here. Goes home to dinner. Tea at home. Does not go to any school; used to go on week days a good time ago. Used to learn, but does not remember what it was.

Walter Flight, age 10.—Has been here five months. Works from 6 in the morning till 6 or 7 in the evening. Breakfasts here. Goes home to dinner Has tea at home.

Goes to school on Sundays but not always. Goes every night in the week, except Saturday, from 8 to 10. Has done this regularly for 3 years. There are 30 boys there. Can read a spelling book and write a little. Is paid weekly. Takes his wages home. Never heard of France or a Frenchman. Has heard of America. Saw it in a picture at school. There was "a picture all over the world."

Alfred Page age 10.—Here 6 months. Fills. Works from 7 to 7. Goes home to his meals. Washes before he goes home. Goes to school on Sundays and every night from 8 to 10. Can read, write, and sum. Twice 9 is 18.

Harry Sandars, age 10.—Goes to school on Sundays. They teach him to read and write. Cannot write. Copies all things off a board.

JOHN OSBORNE.

Is a patient in the London Hospital. Has been engaged in the lucifer manufacture since he was 12½ years old. During the whole of that time has been employed either as a mixer or a dipper. His usual hours were from 6 a.m. to 8 p.m. sometimes to 10 p.m, or 11 p.m. There were three other dippers where he was. All four worked much the same hours. They worked on because the rest of the work depended on them. Did not work so every day. One or two days a week each of them had a rest from dipping and worked in the yard. For the last 7 years he lived and slept in the yard, about 40 yards from where he worked, and was only off the premises on Sundays. The other dippers lived away. They did not any of them suffer from the work while he was there, but none of them stayed there nearly so long as he did, except one, and that one often stayed away from work for a month perhaps. Witness used to have his meals at his mother's where he lived close by, taking half an hour for breakfast and an hour for dinner, but he used to get his tea

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

as he could. Used often to have it as he went on with his work, so that he might not stop the rest. Was paid by the piece.

Had an idea that the work might hurt him. Used on this account to be as clean as he could. Every time he left the dipping stone used to rinse his mouth out with "turps" and water, and also to wash himself. This would be 10 or 12 times a day or more. He also had a change of clothes which he used to put on when he left off work; always changed. The other dippers also used to wash and change, but they were not near so careful as he was. Washing things were provided for the dippers close by their place of work, and also for the nine boys who worked under them carrying the matches to the drying room.

Five years ago he had a tooth taken out because it ached. Had no other decayed teeth. After 2 years the hollow where the tooth came from began to swell. He then came here for treatment and has been here either as an out-patient or an in patient ever since. Came for the last time as an in patient on the 7th December 1861. His face was very painful. For many months before his jaw was taken out he had no rest, but walked about night after night. The jaw was taken out about two months ago. Since then he has been easy. Does not know when he shall leave the hospital.

Sometimes he got up at 4 to get up the steam and stayed up to 11 perhaps. That would be to pack up the work done by the girls after they were all gone.

Sometimes has felt giddy from the fume of the phosphorus. Some of the boys left because they were bad and sick and could not keep their food on their stomach. Some of them could not get their breath at all. Witness could, except it was in the drying room when the matches were all on fire. This happened sometimes. Once or twice a year perhaps. The boys' hands used to be burnt in taking out the frames, when they were alight, to prevent them from setting fire to the others.

Has dipped fuzees and vesuvians. Did not mind them.

"Of course I had no time to go to school," and on Sundays he liked to be out of doors as much as he could—all day.

[Note.—This patient is nearly recovered and goes out. His chin is not sunk, as is the case after the loss of a jaw, unless a new bone is formed. Unless his suffering has coloured his account of his work and its effects, the factory in which he was engaged, (that of Messrs. Bell and Black) must have improved, as I could not find any trace of such long hours of work there now. I saw the jaw which had been removed in four separate pieces. It was the whole of the lower jaw, which is the one usually attacked. It was much eaten into by a fungus-like disease, and very unsightly.]

Mr. JOHN ADAMS, Senior Surgeon to the London Hospital.

I have been assistant surgeon and surgeon to the London Hospital for 32 years.

I removed the jaw of the patient John Osborne. The bone was quite dead. He was not then in danger as we should call it. Ten days after the operation, however, from some accidental cause or other, great hæmorrhage came on and he was all but dead. It became necessary to tie the carotid artery. He is now suffering from palpitation of the heart. This may possibly be owing in some way to the ligature of the carotid. A new jaw is forming very fairly.

I have no doubt that the disease was caused by something injurious in the employment in the manufacture of lucifers. It is admitted to arise from that. I have seen other cases, but I have not watched them through to the end so as to know their result.

I cannot account for the immediate action of the phosphorus, nor for the fact of the lower jaw being most frequently affected by it, as is the case. The lower jaw is more liable to all diseases. I see no connexion in this case between the taking out of the tooth and the occurrence of the disease two years afterwards. There is the fact, no doubt, of the swelling having begun at that place, but that is all. The place and the bone would have closed up in that interval unless there had been some discharge or something of which the man would have been aware.

I think that intervals of rest or change from work of that kind are very desirable. A man ought not to work more than three days a week at it if it could be so managed.

JOHN DAY, Age 20.

Is a patient in St. Bartholomew's Hospital. Worked in a large match factory in Whitechapel four years. Carried matches from the dippers to the drying room. Worked at it all the time he was there and all day, with only short intervals when the dippers left off. This would be perhaps half a dozen times in the day for half an hour or a quarter of an hour or an hour.

When they were very busy has worked till 12 at night; has done this three nights running; very often stayed till 9 or 10. When he worked overtime, had 1½*d.* an hour extra pay. Only the dippers and those who carried from them to the drying-room, like himself, stayed. There were four dipping rooms and a dipper to each, and one carried for each dipper. He was the only boy who carried. Believes that before he went there one person used to stand in the drying-room to attend to it and set up the matches. Used to wash his hands before eating; did that out in the yard at a butt. There was no tub or can to put water in. Also used to wash out his mouth with alum and water.

Used to have breakfast before he went to work, tea after he left off, unless he worked late; then had half an hour for tea; had an hour for dinner at 1; sometimes he went home, sometimes ate it near the melting furnace.

For some time the work suited him, though at the dipping place, and in the drying room, the phosphorus used to get down his throat and choke him, and make him cough and sneeze. It made him short of breath rather, but most so when the matches caught fire and went of. His appetite was always good.

At first when he went home at night he smelled so of phosphorus he could not sleep; afterwards he did not notice it; his mother did. In the dark his clothes looked all bright. Could breathe well when he lay down.

Sometimes he was bad and and sick, and went home for a day or two; saw no doctor. There was no doctor belonging to the place. The people used to go home if they were bad.

After he had been at work a long time his teeth began to ache again. Does not know how long it was before this happened: all of them ached. They had ached before he ever went to work there, and he had three out. When they began to ache again he had another tooth out. Went back to work again the same day; about two months afterwards his face began to swell; it did not hurt during these two months: he stayed on at work for a month; then went to the London Hospital. The doctors felt inside his mouth and pulled out a tooth; after a while a piece of bone "growed" out of the hole. Then he came to this hospital as an out-patient, and was taken in next week, in November 1860, and has been in here ever since.

He was sometimes free from pain, but often could

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

not sleep from it. Then the doctors came and took out a piece of his jaw. His teeth had been so loose before that he used to pull them out with his own fingers. The doctors took out a piece of his jaw several times; sometimes he pulled a piece out himself. The last piece came out Saturday week. Is nearly well now, but cannot eat.

Two others were bad at the same place while he was there, two brothers Harry and George Baker. They worked one in the dipping room, the other at the drying room. They would not have their jaws out; went out of the hospital and died. Their upper jaw was bad too.

Since he has been in here has heard of another man, who worked at the drying room, being at home ill with the disease, and dying; his mother told him of it. This man was there before witness.

[Note.—This witness is very heavy looking, with a face naturally round and shapeless much swelled; is rather deaf; speaks very thickly, and may not have a very clear memory. I took pains therefore to sift his statement as well as I could by cross questions. I was told by a nurse that all the time he has been in the hospital he had been noted for his powers of eating and sleeping. The operation was performed by cutting the chin in two and drawing out the bone from each side. I was told by a medical friend and a nurse in the hospital that another patient had just been admitted in much the same state as the last witness was. He was a dipper. He was not however in a state which would allow of my seeing him to any purpose. I have since understood that the witness Day was not so careful and regular in his habits as he represents himself. He may in his suffering have deceived himself into the belief that he had always done what he knew he ought to do.]

J. HYNAM'S, PRINCES SQUARE, FINSBURY.

A large factory in the very heart of London. The building itself is many stories high (part has a 4th floor) and appears to have been constructed for offices or some like purpose. There are other high buildings close by it, and the only approach is a long narrow alley called "Princes Square." So narrow indeed is it that for a long time I could not learn, even in the immediate neighbourhood, where it was. Still care has done much to lessen the unavoidable evils of so confined a space. Several thorough currents of fresh air are introduced, especially near the dipping places, the chief of which, though forming part of the rooms in which large numbers of children and others are at work, project like bay windows, or perhaps more like cages fixed to the outside wall, open on each side, and with ample ventilation above. These were added for the purpose by the owner, who was aware of the importance or rather the necessity of such a provision.

The rooms are low and crowded, and the upper ones must be very hot in summer. Indeed the children complain that they cannot eat their meals there then. There is a closet to each floor, the boys not being allowed to use those set apart for the women and girls. They are not, however, well arranged. One of the boys' closets opened straight into their working room like a cupboard, and I could see no door. Nor is there any washing place, though hot as well as cold water may be, and it seems often is, obtained from a cistern on the ground and carried up in cans or bowls, which however are, it seems, but very few. Nor can any space be spared for changing clothes, putting away bonnets, shawls, or the food which many of the people have to bring with them, and can keep therefore only in the work rooms. The sisters generally keep their little brothers' meals.

Two rooms are set apart for making paper fusees, which, including the dipping, is done entirely by girls or young women, all however at the time of my visit above the age of 18.

The splints for the wooden matches are made on the premises; the only instance of this I believe in London.

It will be observed from the evidence that overtime is carried to a considerable extent here, that the meals are very irregular and allowed to be broken in upon by work if the children choose, and in particular that the breakfast of the younger children, even when not delayed by their slowness in their work, as is frequently the case, is at all times at a very late hour.

The rooms themselves are not at all suitable places for meals, the space being so crowded. The benches where the children work, and often eat at the same time, are covered with the dust and rubbish broken off from the matches and the composition, especially when the children are "picking waste," *i.e.*, picking up the good matches from the rubbish preparatory to sweeping that away

The wax room is more tidy, and employs a higher class of hands, all young women and girls except the dippers. I came into this as they were sitting about on the floor at tea. One was arranging another's hair. Where another had just moved away I noticed a small bible open. All seemed very cheerful and well behaved.

Mr. John Hynam.—I have been in business here for 23 or 24 years. I have a thorough acquaintance with the lucifer manufacture through every part of it. When I first began I saw that great danger might arise from the phosphorus fumes, unless proper precautions were taken, and I was on this account very careful to secure perfect ventilation in all parts of my works. This renders the manufacture harmless. During the whole time that I have been here I have had no case of a person losing his jaw, though one boy, who was employed in odd work here, did so after he left me. That was simply through his not being clean. Another who attends to the drying room has occasionally complained of irritation in his chest.

Any effect of the phosphorus is occasioned by working in confined rooms and by not being clean. I have seen the boy of whom I spoke lay his bread and butter on the dipping slab with the phosphorus reeking from it. The dippers are, I believe, most subject to any affection of the chest or jaw from the phosphorus; but I do not speak from my own experience.

I have a little knowledge of medicine, and if I see anything wrong with any of my people I recommend alkaline mixture, such as bicarbonate of soda or potash, for washing their mouths, and any usual bitters for their chest or stomach. Soda is the best antidote to the acid fumes of the phosphorus. We use a great deal of it here. But the principal thing of all is great personal cleanliness. This I insist on, though I have sometimes trouble in enforcing it. I

explain the necessity of it to the workpeople and find fault with any that I happen to see not clean. I also try to impress upon all my people their duty to me as their employer, and how anxious I am to be able to give them a good character when they leave me.

I have tried the red phosphorus. It is a very difficult article to manage. It cannot be worked with the same certainty. It is a very violent thing. If the temperature be raised a little too high it becomes very explosive. It is also more liable to damp than other phosphorus and will not ignite then. A match made with this cannot be depended on like a common match. There is no poisonous vapour produced by this phosphorus ; but if any of it were left dry on the slab, a slight touch or contact with any chlorate would cause an explosion. If it could be depended on, I should prefer to use it, as it would be simpler to use, could be used without heat, and has no fumes.

I think any restrictions as to hours would interfere very much with my business. Sometimes, as in damp weather, the work does not dry near so quickly. It would be dangerous to leave it in an unfinished state, and in any case it would often entail loss. I think it would not work well. I find my people like to work later, because they get more then.

I have nearly always more applications for employment than I can take in. Sometimes I have turned away 40 or 50 in a week.

I thing the great danger of limiting the hours of children would be that they would go into the streets and get into mischief. If they could be compelled to attend school, it would be a very good thing indeed ; it would be a great thing if they could be taught a little singing or have any innocent amusement. Some of the girls in the wax room sing nicely sometimes. That work will afford better wages and so employs a better class.

I have heard that in Germany the Government makes the children attend school. I wish it would do the same here, or that our ministers took as much pains with the children as the Presbyterian ministers do in Scotland. There the children are much better educated and can nearly all read and write.

I have tried all kinds of ways to effect an improvement in the condition of the children in their education, as well as in their conduct and comfort ; but I could not do anything in the way of school here. Many of them would not come ; but, I believe, many of them go to the ragged schools, and several have got prizes there. Four did in one year, and some had done so before.

I think restrictions might be useful in certain cases where the business is not well conducted ; but I think also that there might be a risk of injuring or interfering with those that are well conducted. I do not think that restrictions could be applied well in our business.

I refuse very large numbers of little children on account of their age. I never knowingly take them under 12 or 13. The little ones are not so profitable. Sometimes their brothers and sisters bring them in without my knowledge.

I could not work any relays. One set of work could not be finished at a fixed time, and I could not get hands to take up unfinished work. I have thought of the matter and have seen the plan in other works. It could not be adopted in this business where so many children are at work. If the work depended more upon machinery I could calculate the amount of work which I could do, and the objections which I have made to any restriction as to hours, &c. would be little felt.

The foreign manufacturers used to do us great injury by underselling us with inferior articles and forcing us to sink our prices too low ; but lately the manufacture here has been getting into the hands of a higher order of manufacturers, who make better goods, and this is lessening the consumption of foreign made matches.

The English have the principal market for wax vestas ; the foreigners cannot make these successfully. Goodness in the article sold is the only thing that will keep a man in the market in the long run, and in this we have the advantage.

Sarah Cook, age 8.—Does not know how long she has been here. Fills frames. Comes at 7 and leaves at 7. Has breakfast at 10, dinner at 1, tea at 4. Is allowed an hour for dinner and half an hour for each of the other meals. Has them in the room here, or where she likes.

Takes her earnings to father ; he keeps them ; does not know how much it is.

Has never been at school in her life. Does not know what London is. Never heard of God. (Her sister says she must have heard father tell of Him.)

Elizabeth Cook, age 10.—Is sister to last witness. Came here before "the last holiday ;" that is in the summer, when master gives them a treat and takes them out.

Has been to George Yard school.

Charles Fox, age 11.—Has been here six months. Comes at 7 ; stays till half-past 7 ; sometimes 8. That is not often ; never later. Breakfast at 10, half an hour allowed ; dinner at 1, an hour ; tea at 5, half an hour. Washes before dinner and after finishing work. Has a pail and washes in the yard. The foreman has two pails, and two children wash in each at a time.

Used to go to Cripplegate school on week days and Sundays. Goes now in the evening from 8 to 9. "D-o-g" spells "God ;"—spells "dog." Cannot reckon any figures ; used to try.

Mary Ann Lloyd, age 12. — Here two years. Works from 7 to 7. Has half an hour for breakfast at 10, an hour for dinner at 1, half an hour for tea at 5 ; eats them in here. Washes before dinner and going home every day.

Takes her wages home to mother. Mother brought here here.

Used to go to Osborne School and to chapel on Sunday afternoon. Goes to chapel now on Sunday morning. "They learn us to say our prayers and the catechism." They are Catholic prayers. One is the "Priest's Prayer."

Ann Doyle, age 16.—Here eight months. Worked at a match factory before at times. Comes at 7, stays till half-past 7 in the evening, seldom as late as 8. Has her breakfast at half-past 9 or 10, dinner at 1, tea at 5. Has an hour for dinner, half an hour each for breakfast and tea. Eats them here at her bench. Has her breakfast as soon as she has packed her work.

Takes 3*s*. a week to mother. Has 1*s*. or 1*s*. 6*d*. for herself.

Used to go to school a long time ago. Goes to church sometimes or to Victoria Park. When at school could not read without spelling.

That hole in her cheek came from a bad tooth. It "broke out," and her face swelled, and then a piece of her jaw came away. Was in Bartholomew's Hospital for a week with it. That was four or five years ago. Had not worked in a match factory before. Had not worked anywhere before. Was at home. Her face aches often now. Cannot keep on work sometimes for it.

[Note.—This was a heavy mannered girl, answered with difficulty, and confusedly. She has lost a great many of her lower teeth, and is pale and unhealthy looking.]

Sarah Ann Davis, age 9.—Here six months. Has her breakfast at 10, dinner at 1, tea at 5. An hour is allowed at dinner, half an hour at breakfast and tea. Eats them here in the working room or where she likes. Takes 1*s*. a week to mother.

Used to go to a ragged school. Never goes to any school now. Not on Sunday evening. They "did not learn her anything" at the ragged school, so mother took her away. Was in the A B C class. They used to teach her "G-o-d—God." Did not know what it meant. Heard teacher tell them "there is but one

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

God, and He is above heaven." Teacher said He would be kind to them and give them food. Told them if they were bad they would go to hell.

Has not washed to-day. Does generally.

[This girl was wretchedly dirty and untidy.]

Albert Samuel Jenkins, age 10.—Does not know his Christian name, nor his "christened" name. They call him "Albert" at home. "Jenkins is my right name." Fills frames. Comes at 7. Stays till 8 generally, and sometimes till 9 in the evening. Has his breakfast at "all sorts of times." Sometimes 11, or half-past 10, or 10. Sometimes at 9 now his sister is here. When he is very late, eats a bit before. His sister brings it down to him from upstairs at her breakfast time.

Went to school last Sunday. Does not often. Is so tired he cannot go then. Has no time to go in the evening other days.

James Jacobs, age 15.—Does not know how long he has been here. Thinks it is two years. Was two years in a match factory before. Fills frames. Has his meals up here sometimes. Cannot in summer, it is so hot. Goes down in the "square" then. Sometimes fills "clamps" at his meals or "picks waste." If he is slow he has to make it up by working in breakfast time, or making his breakfast shorter.

Goes to school Sunday evenings. Goes sometimes other evenings from half-past 8 to half-past 9.

Charles Byrt, age 8.—Does not know how long he has been here. Fills frames. Works from 7 to 7. Sometimes to 8. Has breakfast at 10, dinner at 1, tea at 5. Has half an hour for each. Has not more than half an hour for dinner. The others say when it is time. There is no clock in this room. Has his meals up here.

Works for his brother there. His brother takes the money home and gives him a 1*d.* a week. Gives him 1½*d.* sometimes "if I cut away much." That means, if he does a great deal.

Went to school on a week day before he came here. Has never been to a church or chapel. Knows what it is.

John Byrt, age 16.—Is brother to last witness. Has been here four years. Works the same hours as the rest. Has his meals up here. Knows the right time for them by the foreman coming in and calling for an account of what each has done. The foreman goes away to dinner and comes back in an hour. That is how the "little uns" know the time. Sometimes works all dinner time to make more money.

John Donald, age 12.—Here "since last Guy Fawke's Day." Fills. Works from 7 in the morning to 8 in the evening. That is his regular time. Has his meals the same as the other boys. Has them up here. Has breakfast at 10 or 11. The foreman comes in then. Knows that is the time because sometimes some of them run down and look at the clock. When he is late he eats at his work. Always has half an hour for breakfast. If he has not filled his frame he can fill it in his breakfast half hour. Sometimes does the same at dinner time, once a week, perhaps, because he wants to earn more. "'Taint always I am a washing my hands." Once or twice a week perhaps. Has plenty to eat. Gets over 3*s.* Last week had 2*d.* of it for himself.

Went to Spicer Street School for two or three months once, and to the church for school on Sunday. Did not hear the clergyman. Does not know what that means. Went in to hear the "minister." He told them "about Jesus Christ, and when He died for us."

Susan Johnstone, age 12.—Comes at 7 in the morning. Stays till 7. Stays till 10 when she works overtime. Is doing that now. Does not know for how long she has done it. (A lot of other girls calculate together and say this is the eighth day running. To-morrow will be the last.)

Has breakfast at half-past 8, dinner at 1, tea at 5. Has an hour for dinner, half an hour each for the other meals. Washes her hands often. Gets water from the tap there (pointing to the cistern which warms the wax), or from down stairs.

Takes home her earnings. Sometimes gets 2*d.* to spend for herself. Goes to school sometimes. Often cannot, because she has to "mind baby." Went to church once at Whitechapel. Never anywhere else. Heard a preacher at the Sunday evening school.

Maria Goodford, age 13.—Here a year. Same hours as the last girl. Stays till 10 now. Likes staying till 7 only best. Has her meals like the last girl and all the rest of them. Takes them down stairs often. Does not often work at meal time.

When she leaves off work at 7, goes to school at half-past 7. Stays till 9 or half-past 9. Reads one evening in the week. Writes the other times. That word ("red letters") is "mark latent." Could not tell why she called it so.

Charlotte Micklewam, age 13.—Here three years. Works the same hours and has her meals like the other girls. Likes working overtime best because she can earn more money. It makes 6*d.* a week more. Takes it all to mother just the same. Likes to take more to mother.

Never goes to school or any church or chapel. Used to before she came to work here.

R. LETCHFORD AND CO.'S, THREE COLT LANE, BETHNAL GREEN.

This is a very large manufactory, and, though in a thickly populated district, stands in a clear open space forming part of the same premises, which comprise altogether towards 1½ acres of ground, and thus not only is the building itself accessible to air and light on all sides, but the space outside consisting in part of grass and garden furnishes a breathing place for all at odd intervals, as well as a suitable place for meals in fine weather for those who do not go home.

The existence of so much space is the result only of the provisions of the Metropolitan Building Act, 7 & 8 Vict. c. 84. s. 54., which requires a certain amount of clear space (50 feet from other buildings or lands and 40 from a roadway) in the case of dangerous manufactures. This was intended no doubt in the first instance for the protection of neighbours, but it seems even more important in the case of a manufacture like the present in the indirect benefits which it is likely to confer by its evident tendency to promote the health of the workpeople. It will be very important on the expiration of the 20 years allowed by the Act, that effectual steps should be taken to prevent then any neglect or evasion of these provisions, which, within the sphere of the Act, would probably lead to the removal of some of the worst evils which now prevail in the business.

In the middle of the space is the match factory itself, newly built and clean looking, and very large. It is, however, open to the objection that it is in a considerable part two stories high, and not sufficiently divided; consequently a very large number of young women and girls are engaged in the main room, which, though high, has a flat iron-sheeted ceiling, some in parts of the work involving necessary exposure to the phosphorus vapour; others, and these the youngest, in parts which may and ought to be made perfectly harmless, such as filling the frames with the undipped

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

matches. I could see the white vapour rising from the matches all up the middle of the room where the matches were being boxed, while the "fillers" were ranged on each side, merely separated by their raised benches or desks. Again, all the dipping is carried on in one small though ventilated passage, opening on one side directly into one of the work rooms, and on the opposite into the drying rooms. This arrangement involves the production of a great amount of vapour on one spot, the very thing so studiously avoided at some other places. It is plain, too, that it is an arrangement very unfavourable to the boys who carry the matches to the dipping place, and from thence to the drying rooms, passing back through the dipping room again on their way with frames of dried matches to be put into boxes. If attention had been earlier turned to the importance of points like these, more suitable arrangements would no doubt have been made, as a great amount of money must have been laid out on the factory, and washing conduits, with towels, drinking water and cups, and proper closets, &c., are all provided.

The drying rooms have fireproof doors and iron roofs, and in case of fire the access of any fresh air is prevented by means of traps worked from the outside so as to exhaust the fire.

In a detached building the materials for match boxes are prepared by steam power, with the help of a few men and boys, and are then given out to be made up off the premises. About 50 women are engaged in this, and each of these employs several children, often half a dozen or so, I was told, under herself. The boys, though in the same room, are not directly engaged with the machinery. In another part of this building the manufacture of ink and blacking, often found in company with that of matches, is carried on.

The employers seem very kind to their people, and give them an excursion to some distant place, as Southend, in summer, and a treat in winter, and the children seemed on friendly terms with the manager and others over them. As a rule, with of course exceptions in so large a number, they were a pale, stunted, and weak-bodied race.

Mr. Robert Letchford.—I have been engaged in the match manufacture 11 years. Having to remove from my former factory in Whitechapel, I bought this land about two years back, in order to meet the requirements of the Building Act.

It would be for the benefit of the trade that manufacturers should be obliged by law to provide proper means, as by ventilation, &c., for securing the health and comfort of those employed by them. The better class of employers would be glad of any such rule applying to all employers alike, but at present are exposed to undue competition from those who will not pay enough attention to these points.

I became aware of the existence of the phosphorus disease about eight or nine years back, by a man coming to me as foreman who had lost his jaw by it. I have known a few cases amongst my own people, I believe three, all connected with dipping. Two of them had, I believe, worked at other match factories before. In consequence, in building this factory I have taken all precautions as to ventilation, &c., which I think desirable, but shall be only too happy to make use of any practical suggestions.

I think that in a well ventilated building the disease would not occur unless a person were already in a bad state of health. I think so from the small number of cases which I have had in so long a time, and the length of time for which some of my men have dipped. I have always understood that the disease is more prevalent and of a more serious kind abroad than it is in England, and amongst the smaller makers here more than amongst the larger. I attribute this to the use which prevails there of a much larger proportion of phosphorus in the lighting composition than is used in the best sorts of matches, such as are usually made in all our large factories.

A cheap match contains four times the amount of phosphorus contained in the best.

I have used the red phosphorus; it is not a practical article; it is double the cost and half the strength of the common, and is more perishable. I do not think much advantage would be gained by using it. Out of my 300 or 400 people only two men, the weigher and the mixer, ever see phosphorus.

I think any restrictions on the business, especially as to overtime, would have a bad effect. I should require more hands, so that the amount of pay reaching each person would be less, and I should lose what now operates as an inducement to remain here on many of the better hands.

It would be difficult, I should say impossible, to prevent working over hours at home in other employments, such as making clothes, &c., and consequently they would not be affected to the same extent that ours would. Our overtime is chiefly during the winter, when the people are in a more comfortable place here than at home.

I have a rule not to employ any children under 10.

As the people work by piece work they sometimes stay away if they please. I allow this unless it becomes too frequent. Sometimes all are gone by 5 on Saturdays, but it depends on business.

I have never tried having a school for the children, though I once thought of it. I find trying to do things for them up-hill thankless work; they do not repay it.

Nine witnesses whom I saw while being shown round the factory by the employer, and who were chiefly pointed out to me by him, I could merely question very shortly, and from these the answers could only be short and general. I elicited more particulars from the following:—

Leonard Smith, age 10.—Three years at the work. Fills frames. Comes at 8; goes at 7. Sometimes 9 and 9½. Not often so late, only in the summer.

Breakfasts before he comes. Dinner at 1; the bell rings. Then goes home at once, even if his frame is not filled. Back at 2. Tea after he goes home.

Has not been ill since he has been here. Works by piece. Earns sometimes 4*s.*, sometimes 4*s.* 6*d.* a week. Has 2*d.* out of a shilling of it.

Goes to school most nights and on Sundays, and then to church afterwards. Learns to read. Reads without much spelling. Cannot write. Can reckon figures up. Five times 4 is 20.

Henry Petty, age 11.—At the work near three years. Boxes matches. Hours same as last witness. Sometimes stays till 9½. Meals same as last witness. This week earns 4*s.* 9*d.* Takes home 3*s.* Buys his own clothes.

Used to go to school every day and night before here. Does not go now. Has to help mother when he goes home. Sometimes goes on Sunday to school at the church.

Reads without spelling. (Did so.) Does figures. Fifty and 50 is 100. Fifty pennies (after a pause) are 4*s.* 2*d.*

Joseph Wheatley, age 10.—Here a year. Fills. Hours like the other two boys. Meals the same also. Washes every night when he gets home. Is allowed 1*d.* a week out of a shilling. Earns 4*s.* a week.

Goes to school Sunday afternoon. Never went to a day school. Cannot spell. Knows the letters. Cannot write. Did "A"s on a slate. Did nothing else.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

Cannot make figures on a slate. Goes to church to sing.

Joseph Jobbin, age 9.—Here nearly a year. Works in the box making room. "Strikes" out shavings. They are scale board shavings, *i.e.* for the boxes. He comes and goes at the same time as the other three boys, but dines here in the grounds. If wet, eats it in his working place. Has tea when the engine stops. That is for five minutes generally. Heats his tea where he works. Never stays later than 7.

Works by day work. Takes his wages home. Has 2*d.* a week ; that is out of 3*s.*

Has never been to school anywhere, day or week. Has never been inside a church or chapel. Heard somebody preach out of doors last Sunday. He preached about Jesus. Never heard of Him before then. Never heard about God. Never heard father or mother speak about Him or heaven. Does not know where good people go to, or where the bad do. Father makes "work deskes." Father or mother never go to any church or such place.

William Jenkins, age 15.—At work four years. Boxes wood matches. Comes at 8. When it is overtime stays till 10 or half-past 9. That is chiefly in winter. Does not do it often. Has his meals like all the others. Goes home to dinner. Cannot begin work before 2 again. Has not often anything the matter with him. When he has it is with the headache and pains in the chest. Is nearly always hungry. "It don't "make any matter to me." Has toothache. Used to have it more two or three years ago than now.

Earns mostly 6*s.* or 7*s.*, sometimes 5*s.* a week. Takes it home. Mother gives him 6*d.* out of it. Gives him the same whether he earns less or more. Came himself to ask for work. His sister was there.

Does not go to school now ; not on Sundays or anything. Used to go "week a days" in the evening three years ago. Left off because mother said it was no use his going because they learned nothing. There were boys to teach them. They were playing as well as the others. That was at Colchester Street ragged school. Cannot read or write. (I tried him and he read short words.)

Cannot do figures. Can count in his head. Thirty-five gross at 1*d.* a gross comes to 2*s.* 11*d.*

Used to go to Whitechapel church with the Colchester Street school. Used not to go before. Has not gone since. They used to teach them prayers at school. Never learned any. Does not know any.

The clergyman at church used to tell them to be good, "but I forget it all now." Mother never tells him anything about it at home. Has no father.

Esther Caroline Dutton, age 12.—Here eight months. Fills wooden matches. Comes at 8. Is here by 7½ because she is "frightened at not getting in." The bell rings at 8, the gates are opened, and all run in. If she is too late she is not let in ; none of them are. Many are late. Stays till 7 ; sometimes till 9. That may be two days in the week. Does not work overtime in winter.

Breakfasts before she comes. Sometimes brings dinner. If it is fine has it in the yard ; if wet, in the room where she works. Bell rings at 1. That is dinner time. If it is fine all go out and the door is shut. Sometimes they are let in again before 2. That is the time for being at work again. Has tea here when she works overtime. Has it what time she pleases then, but in the room. Eats and drinks tea and goes on with work at the same time. At other times goes home to her tea.

Washes hands here before dinner, or at home, if she goes there. Washes at a basin in her work room. They take it in turns.

Sometimes takes 4*s.* ; sometimes 4*s.* 10*d.* That is when she chooses to "cut away." Has 2*d.* every Saturday night out of it. Puts it in a box and saves it up. When she gets enough mother takes it out and takes her to buy clothes with it. Does not have anything then for herself. "We likes to have it in our "clothes."

Used to go to school before she came here, day and evening both. Used to go to church Sunday ; does now. Mother makes them. Has a sister here. They go to school first. Her sister does the same in every way except that she does not go to school so often. Sometimes she wont get up.

Knows the letters. Cannot spell by sight ; can by hearing, little words. Cannot write. Can make a few figures, 12 or 11, not 20 or 30.

Hears the minister preach "about Jesus and when "He was crucified." He tells her different every Sunday. "Mother always made us go. Mother can't get "the time for to go ; she always stays at home to see "us washed and dressed."

Jane Provost, age 11.—Two years at the work. Fills wood matches. Comes at 8 ; sometimes is shut out. Dinner here at 1 ; sometimes goes home. Has tea at home. Does so when she works overtime ; but brings some bread and butter in her pocket then. Always washes before dinner ; sometimes before she goes away. Some do not wash at all. Some that stop in do not.

Mother takes her wages and minds them for her. Sometimes earns 2*s.* 5*d.* a week ; the least is 2*s.* Has all over 2*s.* for herself for clothes.

Goes to school at night when she does not work overtime. Used to go by day before she came to work. Goes on Sundays. Has been a good many times to church. Does not go now because she is not up soon enough. Mother often "jaws me for not getting up "sooner." Can read a little. Can make figures. Cannot count figures. Twice 12 is 24.

Keziah Stone, age 13.—Nearly a year at work. Fills sulphurs (*i.e.*, sulphur dipped matches). Hours and meals the same as the other three girls. Works overtime as they do. Most often goes home to her dinner. When she works overtime she brings victuals for her tea. Likes working overtime best. When she does not she goes to school. Likes going to school. Can say the letters ; cannot spell them together. "D-o-g" spells "God." Cannot write at all.

Goes to church Sunday morning. Says her prayers. "Preacher" taught her ; means he told her to say them. She learned them at school ; learned "Our Father." It is more than those two words—five or six lines.

Sarah Core, age 12.—Fills sulphurs. Has been in the factory almost two years. Comes at 8. Never got locked out yet. All have breakfast before they come. Goes at 7 ; two nights a week she stays till 9 now. Always dines here at 1 o'clock ; has till 2 for it. Washes her hands before dinner. Thinks all the little girls do. That takes some time. Sometimes goes to some taps outside. There is a little "fountain" outside with a cup. She can go and drink there whenever she likes ; when she is at work, if she pleases. Could not get water so easy before she came here. Was often very thirsty then in summer.

Takes home her wages ; 4*s.* is the most, 3*s.* 6*d.* the least. Has all over 2*s.* 6*d.* for her clothes. Works by the piece. All of them do.

Goes to a night school now when she does not work overtime. Likes best staying here and earning more ; that is because she gets all over half a crown. Mother makes her go to school. Goes Sunday morning and afternoon too. Has never been to church or a chapel. Heard somebody preach once on Bethnal Green. The gentleman told them "about Jesus Christ." He said He was very good to us. Had never heard of Him before ; never at home. Never heard father or mother say anything about it. Mother told her that good people go "up in Heaven" when they die. Cannot write much. Writes figures a little. Fifteen and 15 (does not know) ; 10 and 10 are 20.

Ellen Edney, age 13.—Worked four years at this and the old factory. Fills wax frames. Works the same hours as all the rest. Never stays later than half-past 9 ; that is when they are very busy. Has her meals like the rest ; goes home for them or not, as it happens. Is always very well. Is very hungry at breakfast. Broke that tooth when she went to Greenwich ; that

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

was the holiday. Has a holiday every year. Mr. Morris (the manager) always takes them, if they ask, whether they have been regular or not.

Earns 5*s.*, sometimes less; has earned 6*s.* 6*d.* Mother lets her put away all over 3*s.* 6*d.* for dress.

Goes to school Sunday evening, no other time; never went on a week day. Knows the letters. Cannot read. Cannot write. Cannot write figures and count them. When sums are "writ" down first by some one she can tell what they come to.

Caroline Scaife, age 15.—At this work four years. Boxes. Works by the piece. Earns 5*s.* 6*d.* a week, about. Lives at home with mother. Her three sisters who work here do the same. Her father is a traveller near Liverpool. Her mother works here, too, at boxing. Is not strong. Had the rheumatism from a sprain. It is that that has drawn her on one side.

Margaret Scaife, age 12.—Is sister to Caroline. Has worked in this and the old factory four years. Used to fill frames; boxes now. Gets 5*s.* or 6*s.* a week, Goes to school on Sunday with her sister Mary Ann. They are both going to get a prize next Friday. That is given for being regular at school and keeping their place here too. They bring a paper from the school to be filled up here. If it can be filled up right they take it back and then get a prize. They must be regular at school or account for it if they miss. The papers are given out at Christmas. Went to a day school before she went to the Sunday school.

Mary Ann Scaife, age 12.—Is twin sister to Margaret. Works the same, but does not stay so long always. Earns 4*s.* or 5*s.* a week.

Louisa Scaife, age 10.—Is sister to the above. Is just 10. Came here at Christmas. Fills frames. Earns 2*s.* a week.

Martha Blett, age 9.—Is nearly 10. Has been here two months. Fills frames of sulphur matches.

Harriet Renouf, age 11.—Comes to work at 8; goes at 8. Earns 2*s.* 8*d.* a week. Has breakfast before she comes. Has dinner at 1 in the yard. Goes to school on Sundays.

[Note.—Since my visit to this manufactory, seven months ago, accounts have appeared in the papers of three explosions there, though but few particulars were made known. The first, when a boiler was said to have burst, was stated to have caused great alarm in the neighbourhood, seriously injuring the building, and blowing some men to a distance, they suffering severe burns. The second happened a day or two afterwards, probably from the combustible materials in the ruins. The third has just happened.]

RICHARD BELL AND CO.'S, SOUTH STREET, WANDSWORTH.

This factory I visited in company with one of the Commissioners, and could only take a few passing notes. It is one of the better class and well situated, being out of London, and is built on a long strip of ground, which allows of having in the important parts only one story.

The dipping place opens into other parts of the building; two or three boys were, as it seemed, without any necessity, waiting about close by the dipping slab while the dipping was going on.

The dipper has several intervals in his work, being engaged for about five hours in the day. The rest of the time he waits about. It is at such times that an open space in the fresh air close at hand may be of the greatest service.

This man has been engaged in the work for 22 years, and says he has not found any serious ill effects from it. He says, however, that he finds a loss of appetite and feeling of sickness sometimes in the morning. He looks well, except that his complexion is unnaturally red. The other people on the whole looked fairly healthy, though many did not. I understood that one woman had something the matter with her jaw, and had been to the Brompton dispensary for it. I noticed an extremely delicate looking girl of 13. She told me that ever since she had been at work there her chest had been bad, and her breathing weak. She had been there nine months. She was not so before she came, or very little so. She looked, however, of a delicate constitution.

Mr. John Thorn.—I have been engaged as a lucifer manufacturer for five years, as partner in the firm of R. Bell and Co., of Wandsworth. During this time I have known one case of jaw disease. I believe it to be very rare, and think it can occur only where the teeth are previously decayed. There is very little the matter with any of our people, and they seldom require medical help. No medical man attends them. They go to their own doctors perhaps. There is only one girl there whose face has had anything the matter with it. The case of jaw disease, of which I spoke, occurred in a man whose occupation was to prepare the dipping mixture and clean the dipping slab after every dipping. He has been in the hospital, and is, I believe, to have part of his jaw removed.

Some time ago we recommended our dippers to use charcoal respirators, but they do not do it. Very recently, having been informed that turpentine was useful in counteracting the effects of phosphorus, we had some placed in a pan on the dipping slab. I do not know whether it has made any difference.

We have not used the red phosphorus. It is dearer than the white, but very little I believe. I have heard that it does not stand. It is not generally used.

A general law restricting the hours of employment in all manufactures alike would not interfere with our business at all if the hours were well arranged. The hours most convenient for us would be from 6 a.m. to 6 p.m. in summer and from 8 a.m. to 8 p.m. in winter. Seven would not do, as work must be broken off so soon for breakfast, and breakfast would not be taken before 7. The quarter before Christmas is our busiest time.

We very rarely work overtime. The people do not like it, and we do not try to force them. They seem as if they did not care for getting more than a certain sum. Sometimes we have had special orders, and been unable to comply with them within the time desired in consequence of this difficulty in getting any to work beyond the usual time. I think once we worked till 9½ p.m., but that was very late for us indeed. We hardly ever work anything like so late as that.

We find it difficult to get enough hands of the class that we require. In a poor and closely populated district, such as Bethnal Green or Whitechapel, it would be easy. We have twice raised our wages, but without getting a better supply of hands or of a better class. We find the children very independent and fond of change. They prefer day work to piece work, because they need not exert themselves in order to get their wages.

There is a large paper manufactory and a large candle manufactory near us. When they are busy they draw the hands from us. They pay, I believe, by the day, with the addition of something for the quantity of work done. This seems to attract labour. We try this plan a little, but it is less suited to our work.

One of our men has lately started a school, and tries to get as many children from the factory as he can. He does it for nothing, *i.e.* makes no charge, after his day's work is finished. Some people subscribed towards the expenses. It was very well attended at first. I do not know how it goes on now. I have seen some of the children in our employment going to school on Sunday, but I do not know much what they generally do on Sunday. I do not think they would care to go to school after a full day's work. There was once a

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

school on the premises, but the lady who supported it is now away, and the room which was used for it is required for other purposes.

I think it very desirable that some means of providing education for the children should be found ; but I do not see how it can be done. If at all, I think it must be by the private influence of persons interested in education, such as the Home Mission and others.

If any children wished to leave an hour or two earlier for the sake of going to school we should make no objection. But if we were compelled to dismiss them earlier for that purpose and not to employ any who did not attend school, I think we should find a difficulty in our neighbourhood in getting a sufficient supply of hands. But this objection would not apply so much in a poor and more populous district. We should prefer better educated children if we could get them. They would not be such a rough lot, and would work better and would have more self respect. It is the moral effect which would be the chief advantage.

W. ADAMS', 4, PRINCES COURT, TYSSEN STREET, N.E.

Merely a private house, with three girls employed in a gloomy upstairs room making match boxes, a few vesuvians being occasionally made in a deserted-looking back kitchen by Mr. Adams, with the help of one little boy, who, when I was there, was filling frames.

William Adams.—Has been engaged in the business 24 years. Worked 16 years at Hynam's. Used to fill, tie up bundles, and grind the composition, and in the afternoon go out of doors. Used to carry matches to the drying room. That could not help being very disagreeable, because of the phosphorous acid. In a drying room that is inhaled in the extreme. Made him cough.

A match factory ought not to be in a crowded place at all ; it ought to be in a clear space, with low houses round.

Was not affected by the work himself so as to have any complaint. No doubt he would if he had always stayed in the drying room, or dipped. One man lost his jaw after leaving there ; but that was through want of cleanliness. That man would not wash more than once or twice a week, perhaps.

Thinks all match places ought to have washing rooms. There ought to be a law for that, especially in large places, because the master cannot look after all the people to see that they are clean, and is often away or engaged. In a small place a master can look to his people.

Anna Renshaw, age 17.—Works from 8 to 8. Has breakfast at 9, dinner at 1, tea at 4½ ; has an hour for dinner, half an hour for breakfast, and the same for tea. Goes home to her meals. Takes home her wages.

Six or seven years ago went to school on Sunday and on week day evenings. Cannot read at all now.

Mary Ann Scholefield, age 9.—Worked at home before she came here ; that was three years ago. Has her meals at the same times as the last girl, and goes home for the same time. Used to go to school on Sunday and "week-a-day" nights. Goes now in the evening from 8 to 10. Cannot read without spelling.

Elizabeth Jones, age 12.—Has the same hours for work and meals as the other two girls. Goes home for them. Goes to school on Sunday, and sometimes on a week day evening. 3 times 5 is 15.

Henry Renshaw, age 10.—Just come here. Is filling frames. Was at a good place with an oil and colour man, but had to leave it because he could not read and write. Does not go to school.

DAVID WAITE'S, CORNWALL ROAD, GLOBE FIELDS, MILE END OLD TOWN.

Much of the same kind with the other smaller factories. The entrance is through a room where matches are stored, and smelling very strong of them. Beyond this is a large dark shed ventilated only by the doors and the imperfect state of the roof, which lets in the rain. On one side is the stove for melting the composition, and the dipping slab. Close by it is an entrance to the dwelling house. On the opposite side is the entrance to the drying room. The boys therefore work just between these two objectionable parts, with no separation. There is no washing place or other convenience. Owing to the small amount of work going on, however, the place was not oppressive. In busy times as many as 15 boys are employed ; now there are only five, with two men.

David Waite.— Has lately moved to here. Has been in the business 20 years, *i.e.*, since he was about 30, and has worked in all parts of it. Has not suffered from it himself much. Knows a great many that have been attacked with the jaw disease ; should say 14 or 15. Many of them died. Most of them were dippers. One or two of them worked in the drying room. It was the custom in large places to have some one to stand about there and to take in the frames. The cause of the disease was the same there ; it was the effluvia of the phosphorus. That was the general belief. Cannot see that it is anything else. Cannot account for being free from it himself, unless it be that he has been particularly clean, and temperate in his living and meals. Always was so. Has seen men eat their victuals with their hands all over with the composition. Was recommended by a doctor to use alum and water for his mouth after dipping. Had a tooth out because it was decayed. Feared the disease might be coming, because he had heard of two or three others who had the disease come on after having decayed teeth out. Had lost two or three teeth from decay before he begun this work.

Some are attacked after a few months' work only. Thinks no man ought to work at dipping the whole day. If it is a place where there is much to do they ought to change about. No man should work at it more than three days in a week, if there is much of it.

Uses the common phosphorus. Has tried the red, because it is easier to mix, being in a powder, and is more pleasant. Gave it up because it is dearer. Believes most have tried it.

Robert Makin, age 14.—Here three or four years. Fills frames. All the other boys do so too. Comes at 7½, goes at 6 ; never later than 7. Has breakfast before he comes. Dinner at 1 ; goes home for it ; has an hour. Has tea at home after work. Is always hungry. Works by the piece. Takes earnings home ; 4*s.* or 5*s.* a week.

Does not ever go to school now. Before he came here went to George Yard School, day and evening. Learnt to read and write. "Don't known none now." Could not spell. Can reckon a little. 3 times 3 are 9.

[Note.—This boy has a bad tooth.]

Nelson Waite.—Is son to Mr. Waite. Works only sometimes on a half-holiday from half-past four in the afternoon. Goes to school every day ; pays 10*d.* and 1*s.* a week for it. Can read and write anything. Is "the best scholar in the school." There are about 60 boys there.

William Arnold, age 14.—Does not know how long he has been here (the others said it was 2½ years). Comes in the morning at 7, sometimes at 6 ; stays till 6, never much later. Breakfasts before he comes. Has from 1 to 2 for dinner. All have the same time for that. Goes home for it. Has no tea anywhere. Sometimes washes in the can. Works by the piece. Takes it to mother. Earns 5*s.* or 4*s.* or 7*s.* a week.

Was at George Yard School before he was here. Does not go anywhere now. Cannot read much. Cannot write nor sum. Summing is "making numbers." Used to go to church on Sunday. Does not go now. Left off two or three years ago because he had got work, and that took up all his time in the week.

James Wells, age 11.—Here nearly three years. Fills frames. Hours are from 7 to 7 in winter, 7 to 6 in summer. Has breakfast either at home or here. If here, eats it against the furnace ; eats it "on it." Makes it overnight, and warms it up there. Has dinner at

home. Never has toothache. Is not out of breath, except when he runs. Works by the piece. Takes "every farthing of it" home, about 10*d.* a day.

John Wright, age 11.—Here 2½ years, and a year in another match factory. Has his breakfast at 8½ or 9; has 20 minutes for it. Has an hour for his dinner at 1. Has it "in the fire."

Used to go to Spicer's school for a year and a half. Has not been since he had work. Goes on Sundays sometimes. Learns "about God."

WILLIAM TAYLOR'S, THREE COLT STREET, OLD FORD, BOW.

This is a small but well managed factory, standing at the bottom of a garden, and therefore with plenty of air round it, besides being almost in the country. Most of the arrangements are very good. The building is of one story. The composition is "melled," *i.e.*, rubbed on a stone, and mixed, and, as well as the sulphur, heated under a little shed standing quite by itself and quite open in front. The dipping however is done in the main working room, but in a recess and far from where the children are at work. In this branch of the factory one young woman, four or five girls, and as many boys, are employed. Another branch, viz., making match boxes and pasting on covers, is carried on in the house by eight or nine girls alone, with one or two elder persons who also superintend them.

Water can always be had, and a round towel is hung up for the children's use. There are privies with closed doors kept separate, one for the boys, the other for the girls.

If the children come back or have had their dinner early they play in the garden. The two sets of children dine at different hours so as to prevent them from mixing; some choice being attempted in first engaging them.

Mr. William Taylor.—Has been in this business more than 20 years, and has a thorough knowledge of it. Was aware that the employment was injurious, but never knew any who suffered from it where he was at work. They were all well conducted places. Has known some from other places who had the jaw disease. But in his opinion it may be entirely prevented by care and cleanliness, and a proper construction of the work places. Most that he has known suffer from the disease were idle dissipated men, and not clean in their habits. Has seen them eating a penny loaf and cheese with their hands all covered with dirt from their work, even while at their work, and putting it down on the stone.

Thinks it ought to be insisted on that match factories should be built of one story with thorough ventilation, and the parts connected with the composition separate, and also that every place should be provided with water and means of washing.

It would be a great thing, if possible, if match makers could be prevented by law from using an unnecessary quantity of phosphorus, as is done in the common bundle dipped matches. In some of these the proportions of the composition are 1 lb. of glue, ¼ lb. of chlorate of potash, and 1 lb., or four parts out of nine, of phosphorus. Uses but 1 lb. of phosphorus to 20 lbs. of other ingredients. Indeed it is unnecessary to use fuming phosphorus (*i.e.*, the common) at all, or to use sulphur, so that all noxious fumes might be got rid of altogether.

The red phosphorus answers the purpose quite as well as the common, only it is more expensive in itself, and does not go so far. Has tried it himself and succeeded with it. The matches ignite very well. Never tried specially, but should say decidedly that the red phosphorus would not be more liable to be affected by damp than the other. It is the glue that is affected by the damp chiefly, and when that gets damp of course it spoils the other ingredients.

English matches are much better than the German, for the very reason that we use less phosphorus than is used abroad, and consequently there is less oxidisation of phosphorus going on in them. In proportion as phosphorus becomes oxidised it loses its power of lighting. Besides the better matches, as ours are, are better bound and hold the fumes in better.

Has read in books and has also been told that in France only the red phosphorus is allowed to be used in match making. Does not know much about other countries, but knows from books and from inquiries which he has made as a practical man that they use there an immense deal more phosphorus in proportion than we do. This without question is the reason why the jaw disease is so much more common abroad than here. And here it does not occur, or scarcely so, except in making the inferior matches. It is hardly ever found in the best places.

Thinks it a great pity that such very large quantities of common bad matches should be allowed to be about if any restrictions could prevent it.

There can be no doubt that it is very desirable that children should have opportunities of learning, and of fitting themselves for their after life. But from his experience the parents, so far from doing what they can to help in this, put great obstacles in the way. Once let some boys leave off work an hour earlier and paid for their schooling in that hour. The mothers came and said that if he made their boys go to school they should take them away, because they did not like it.

The plan of not letting children work unless they had been to school would he thinks be quite effectual; and in populous places desirable, but if the time of work were much shortened he doubts whether he could get near here the greater number of hands that he should want.

Any other regulations as to hours, meals, &c., if like those observed in a well conducted place, would make no difference to him at all.

Thinks it would be a very good thing in large factories when there are many boys and girls engaged to have a separate dinner hour. That would prevent much mischief that often occurs in such places.

Amelia Littlemore, age 9.—Lately come here. Fills frames. Works from 6 to 6. Breakfasts at 8 (half an hour allowed); dinner at 1 (an hour). Eats these here in the working room. Has her tea as she works. Earns 3*s.* a week; takes it to mother and she puts by some for her clothes.

Goes to school on Sundays at 9 and 2, and from school each time to church.

Emma Littlemore, age 11.—Is sister to last witness. Here three years. Fills frames. Has the same hours for work, meals, and school as her sister. Reads. Can write, but only her name. Four times 6 is 18.

Betsey Borrett, age 12.—Here a year and a half. Fills frames. Lives near. Has the same time for meals as the other two girls; goes home for them. Earns 4*s.*, 4*s.* 6*d.*, or 5*s.* a week. Mother puts away 6*d.* of it sometimes for her clothes.

Goes to school on Sunday and to church afterwards. Reads a little. Cannot write at all. Can do no figures at all; 7 and 7 are 14. Went to a week day school three years ago.

William Smith, age 14.—Fills frames. Works from 6 to about 6; that time is not quite fixed; never stays later than 6½ or 7. Has breakfast at 8, half an hour; dinner at 1, an hour; tea after he leaves.

Goes to school on Sundays; used to go on a week day before he came here. Can read quite easily; can read the Bible nicely. Can write, and do summing as far as division. Has had eight years schooling.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

William Embling, age 11. — Here two years. Fills frames. Meals the same as the other two boys. Says the boys all go home to their meals. Sometimes earns 3*s.* or 3*s.* 5*d.* a week. Gets ½*d.* a week out of it for himself.

Goes to school on Sunday and to church afterwards. Reads a little. Can write his name. Can count figures; can count them "up to 1,000." (When put on to count from 121 he always left out the hundred.)

Benjamin Diaper Wilshire, age 10. — Here one year and a half. Has his breakfast and dinner in here; sometimes out of doors, if it is fine. Washes with a pail of water outside before his dinner.

Before he came to work, used to go to school in the week; goes on Sundays now. Can spell "boy;" cannot spell "shirt."

Jane Taylor, age 15.—Is sister to Mr. Taylor. Cuts bundles and boxes them; has done this three years. Is always quite well; never has headache or toothache. Lives in the house.

Ellen Borrett, age 17.—Cuts bundles and boxes them; has done so for a year and a half. Goes home to her meals; has them when the others do. Left school a long time ago. Learned to read. Can write a letter. Is always quite well. Never has toothache.

George Littlemore, age 15. — Here five years. Knocks off frames; *i.e.*, empties them. Has only been bad once; that was with "slow fever." Never eats his victuals without washing his hands. Is not hungry much in the morning. Generally goes out nto the park (Victoria) to eat his victuals.

Alice King, age 11.—Works from 7 to 7. Breakfasts at 8; has half an hour for it. Dinner at 12; has an hour. Has her tea after work is over. Washes at home before her meals.

Goes to school and church on Sunday. Can read the Bible without spelling the words if they are not very long.

Anna Poole. — Does not know her "Christian" name. They call her "Topsie" here. Has her breakfast at 8, dinner at 12, tea at 4½. Plays in the garden after dinner. Gets 2*s.* 6*d.* or 3*s.* a week. Mother gives her 1*d.* or 2*d.* a week out of it.

Used to go to school every day when father was alive. Used to go to church too; does not remember what was said there. Has been taught prayers; knows them now; was taught them at home.

Annie Wignot, age 12.—Has her meals here at 8, 12, and 4. Plays in the garden.

Was at school every day before she was here; goes on Sunday now.

WILLIAM BARBER'S, PORTMAN PLACE, GLOBE ROAD, MILE END.

A fuzee (paper) and Vesuvian factory only, and quite small. The matches are dipped in the first room on the ground floor and carried in and out of the drying room (which opens from near the dipping stone) by a little boy. This drying room felt very hot. I tried it by a thermometer, and found it 93°, but there was no other unpleasant feeling or smell, the matches then being dried not having been yet dipped in the phosphorus. There is another room, also very hot, for drying the paper for the fuzees, after it has been steeped in saltpetre and bichromate of potash. All work downstairs, except a man, a boy, and three girls, who all make the paper fuzees upstairs in an airy room, with windows on each side and a good ventilator in the corrugated iron roof. The composition is "laid on" by the boy and girls who take it in turns, and at other times work at packing, &c. One has worked here five years without any harm. One of the two men was standing at the door said to me, "These are my children; I take care of them all." As the children's answers will show, it is a nicely regulated place.

Mr. William Barber.—Has carried on business for 11 years. Before that was engaged in the match manufacture at Hynam's for 10 years. Used to mix the composition; never found any ill effects from it. The factory was well ventilated, and plenty of water was provided. Thinks there is no question that this was the cause of its being a healthy place. Never knew any bad case of disease while he was there.

In his opinion, the only cause of the disease generally found in the match manufacture, *i.e.*, the jaw disease, is people not being clean. Has seen the dipping men eating with the composition all over their hands, and laying their bread down on the same stone close beside them; that was at the little places. Lads used to be employed there, and they were thoughtless; but there are not so many of these places now. The larger manufactories are taking their place, the profits on matches being so small as to require a great number to be made in order to pay.

Used himself, when mixing, to wear a sponge over his mouth; used to wear it nearly all day long. Never found it inconvenience him in the least. After work generally washes his hands with common soda and water; that kills the phosphorus. The cases of jaw disease are much more uncommon than they used to be; they occurred chiefly at the small places where the matches are bundle dipped. They are of an inferior kind; they have much less composition on them, and require to be much stronger of phosphorus to make them light the wood.

The two things to be attended to are ventilation and cleanliness, and it ought to be seen that every place is properly provided with the means of securing these.

Elizabeth Dulieu, age 12. — Has only been here a day. Used to go to a night school.

Martha Markham, age 13.—Here a year. Comes at 6 in summer and 8 in winter; stays till a little after 6 in both; very seldom later; never later than 7. Has only stayed to 7 once this season. Has breakfast at 8, three-quarters of an hour allowed; dinner at 1, an hour; tea at 5, half an hour; goes home for all.

Earns 6*s.* a week. Mother gives her according to what she makes; generally gets 2*d.* for herself. She is very quick at her work. Was at service once. Would sooner be here than at service. Can earn more.

Goes to school on Sundays and to church afterwards; went regularly to a day school before she came here. Never goes now in the evening. Used to read and write; cannot do either now. Is quite sure she could not if I showed her a book. Knows her letters; knows what the book means at the time when it is told to her.

Ann Langton, age 17. — Here a year. Comes and goes and has her meals like the last girl and the others; all go home. Always stays an hour at dinner. Could not get in if they came back earlier; the door is locked.

Went to school a good while ago on a Sunday; never went on a week day in her life. Cannot read at all; not even a short word. Cannot write, nor make any figures. Went to church on Sunday nights three or four years ago. Knows what the Bible is about. Never heard of David, or of Abraham.

Sarah Ann Finch, age 17.—Has the same times of work and meals. They all have. Earns for herself. Went to a day and Sunday school eight years ago; got on very badly with it. Cannot read or write. Does not know what the four quarters of the world are, nor what Europe or Asia are.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

Margaret Finch, age 12.—Here two years. Went to a day and Sunday school till she came here. Can read (reads well) ; can write and sum ; can "do nearly all the sums ;" did "division and some of the others."

Samuel Gowne, age 13.—Here two years. Carries the frames from the dipper to the drying room, and back again when they are dry. Has his hours and meals the same as the girls. Is quite well ; has been so, except when he had the small-pox and the measles. Used to have toothache a good deal ; has not had it much since he came here ; it seems to have gone. Is hungry at meal times.

Earns 5*s*. a week. Gives it all to mother ; she gives him 6*d*. to spend, and buys his clothes.

Till at work here, "I went to school for five years and didn't learn nothing ;" that was at Essex Street school-church first and afterwards at another place. Did know a little ; has forgotten all he knew, all but a little bit. Knows some letters ; can hardly spell ; cannot spell "G-o-d" (shown to him. When told,) Knows what that means : "Why ! He make, He says I can be able to work and all manner." Knows of Queen Victoria ; she is the Queen. Adam was the second man born ; he was taken out of one of Eve's "wines ;" that is some part of your body (query "loins"). Knew (when told) it was from a rib that somebody was taken. Would like to go to school.

[Note.—This is a pale and at first sight rather wretched looking boy, partly no doubt from the marks of the small-pox and poor clothing, with several of his teeth decayed and the fangs of the back upper tooth on each side showing through the inside gums. His manner, however, though timid, is very winning, and he is only one of the many that I have seen who, though wretchedly ignorant and uncared for, seem to want nothing but the opportunity of a better atmosphere, physical and social, to grow up good and gentle-hearted men and women.]

JAMES PALMER AND SON'S, SOUTHAMPTON PLACE, CAMBERWELL.

In this factory the manufacture of "vesuvians" is carried on in one building; that of wax vestas in another. The vesuvian room is low and awkward, with the dipping place at one end close by the door into the drying room, and frames for drying the matches in the middle, the women and girls working at the side. There, however, seems to be no objection to this, until the matches come to be dipped finally in the phosphorus composition. I did not see any that had been so dipped in this room. In a long passage which forms the entrance to this, matches are stored in packing cases, but there is no smell. The vesuvian room was not in use this day, but I found one of the girls belonging to it working in the wax room, and took her account of it.

The wax match rooms are in a different building. Upstairs, the taper is being made by four young women, none under 18, and there was also the carpenters' room. On the ground floor is the dipping room, which forms the only entrance to the whole building, and opens on one side into the chief work room, which is long and narrow, with a very low, flat ceiling, but with several windows open ; on the other into the drying-room, into which the dipper only is allowed to enter, the two carrying girls receiving the frames, when dried, at the door from him. One girl however is very often at work in the dipping room itself "patting up" the frames brought in to her by the fillers. During the rest of her time she packs in the work room. The dipping slab is by the door, and has a window in front which opens, but the place is small, flat-topped, and low.

The work room is very crowded, so much so that it is difficult to move about there, indeed it cannot be done without brushing the dresses of the girls at work. Being so low, too, the room was quite thick with the white vapour rising from the table in the middle where the matches were being cut and put into boxes. Meals are often eaten in here, especially in wet or cold weather, when the windows cannot be open.

There are taps of hot and cold water connected with a steam boiler, where the girls can get water, and soap is found for them, but there is no regular washing place. There are also closed privies distinct for the men and the women and girls, but the doors adjoin.

This factory, like most others, labours under the disadvantage of not having been built for the purpose, and the proprietors complain that the Building Act inconveniences them very much by not allowing them to expand, which would bring them closer to their neighbours than is allowed by the law. Twenty years, however, from the date of the Act (1844) were allowed to all persons to enable them to find a place suited to the kind and probable extent of their business. No boys are employed here.

Mr. James Palmer.—Is one of the firm. Has no particular views with reference to the objects of this inquiry, except on one point. That is as to the education of the children. Does not see how the time can be found for that. If the working hours were shortened for that purpose to the extent required by the factory laws or nearly so, the effect would necessarily be to diminish the wages that could be earned by each child in the same proportion, *i.e.*, by about a third, as the work must then be done by other hands. But he has always found that in proportion as the wages earned are small, so are the hands careless and the work badly done or spoiled. Thinks that there is no ground for expecting that the children would become so improved by education as in any way to counterbalance this. Finds children of all kinds careless and troublesome when young, and that those of a higher class come back from school as mischievous as ever. Thinks, therefore, that the effect of taking a part of his present working hours for the purpose of instruction would practically have the effect of making him cease to employ children at all. The amount of wages that can be earned being in his opinion the only security for carefulness and good workmanship.

Anna Pope, age 16.—Here six years. Fills fuzee frames. Has done so for the last three years. Before that filled wax frames. Comes at 7 ; at 6 when busy. Stays till 6, or when busy till 8 or 9 ; sometimes till 10. That is very rare, as when working for a ship. Does not know that one time is busier than another. The fuzee part is less likely to work overtime than the wax part.

Has breakfast at 8, half an hour ; dinner at 12, an hour ; tea at home after work. Eats meals in the factory, and in fine weather out in the yard. When she has tea here, has it in the breaks of her work, and as soon as she has finished tea goes on again. Cooks here in the factory, and keeps crockery, &c. there. After work, before dinner, washes her hands in a can. Soap is allowed.

Works by the piece. Has earned 12*s*. a week three or four times. Generally earns about 8*s*. Takes 5*s*. a week to mother, whether busy or slack. Sometimes

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

does not get more than 5*s.* altogether. Only unwell occasionally. That is from bilious attacks.

Used to go to Green Coat day school before she worked here. Went to an evening school afterwards for about a year. Paid 4*d.* a week for three nights a week out of her own money. Never asked mother. Mother would not have paid it. Used to go to Sunday school regularly. Has left that off for six months. Can read and write very well. Has done multiplication, addition, and "substraction."

There are usually three girls under 18 besides herself working in the fuzee room, and seven women. They have all the same hours, meals, &c. as she has.

Sarah Crisp, age 15.—Here two years. Boxes. Has only begun this for six weeks. Used to fill. Comes at 7 ; sometimes 6. Stays sometimes to 8 or 9. Has stayed to 11, but very rarely. Has worked overtime for a week running.

Has breakfast the first thing when she comes, before work. Begins work as soon as she has done. Has no fixed time. Has dinner between 12 and 1. That is when "Dan" (the dipper) has dipped a certain number of frames. Then he comes and tells them, and they leave off. As soon as the frames are dry they begin work again. Sometimes has to wait. Cannot tell how long it is. Washes at a tap. Lets it run. There is a can somewhere. There is no towel. Wipes her hands with her apron. The other girls do the same. Soap only is found.

Works by the piece. Earns 5*s.* a week. Takes "every farthing" home. Has 6*d.* or 8*d.* allowed out of it.

Used to go to day school before coming here. Goes to evening school now, when she has done work early. Has been to Sunday school sometimes. Says she can read and write (when set on by me says "in their way home, &c." in large print is too hard for her, and does not even try it). Has written copy books at school, and her own name. Got a ragged school prize at Exeter Hall for keeping her place here and being regular at school. Is well. Only has bad feet. Has good appetite.

Dulcibella Pope, age 15.—Here six years. Cuts wax bundles, and boxes. Has done this for 1½ years. Breakfasts before work like the last girl. Dinner in the same way. Tea the same. Washes at the steam tap. Asks for soap when they want it. Earns about the same at the knife as the girls do at the boxing. More than at the filling. Gives 5*s.* a week to mother. Has earned 10*s.* Has left off going to Sunday school. Used to go to Green Coat school before here like her sister. Has good health and teeth.

Alice Combes, age 16.—Here five years. Boxes matches. Just begun this. Has meals whenever the others do. Dinner is from 1 to 2, but varies according to the work. There is no clock about the place by which they can tell the time. Generally washes before dinner. Thinks all do. Wipes her hands on her apron. The others do the same. Allows father so much a week, 3*s.* ; sometimes has 3*s.* left for self.

Has not been to school more than once or twice on a week day in her life, and three or four times on a Sunday. Has been once to a church and once to a chapel in her life. Has never heard any preacher or any one praying anywhere else.

Does not know what the Bible is. Has never heard of it. Does not know that it is a book, she's sure. Does not know how the world was made. Never heard of Adam or Jesus Christ. Never was taught any prayers. Never heard of them except when she went to church. Knows that good people go to heaven, and bad people to hell.

Suffers with the headache very much.

Sarah Ann Carr, age 13.—Here a year. Fills frames. Was at a "flour baker's." Has meals like the rest. Has an hour for dinner. They sometimes begin work earlier after dinner to get on with it. Always washes. Does that in a tub under tap where the steam is.

Has a bad cough. Had it three or four weeks ago. Had to lie in bed two or three days. Had cough for about two months before. Does not know how she came by it. Used not to be well before. Used to have pains in her chest. Never had a doctor.

Used to go to day school just before she came here. Only went for a month. Helps her sister do work on Sunday, so has no time to go. Cannot read or write or do figures. Has been to a church. Does not know what she heard about. Has heard of the gospel. Does not know what it is about. Knows that Jesus Christ was put to death to save us.

[Note.— This is a very delicate looking girl, with a faint flush under her pale cheeks, and a weak voice. Several of the other girls in the factory were very stunted (I took one of 18 here for 13 or 14) and of weakly make and appearance, some with very narrow chests, bent to one side or other. There seems, however, nothing in this work to distort them.]

Daniel Dredge, dipper.—Here six years. Has been dipper for three. Never finds it inconvenience him ; but takes medicine once or twice a fortnight. Considers that necessary in this kind of work. Had heard that it was good to do so. Was not told by a doctor. Washes his mouth out with water four or five times when he leaves off dipping. Has 20 or 30 intervals from dipping in the day. Washes his hands 20 or 30 times a day. Always cleans his teeth with a brush before tea. Changes his waistcoat when he gets home. Can see the vapour rising from it, if it is damp weather.

HENRY SIMLICH'S, WILLOW WALK, BETHNAL GREEN ROAD.

This is quite a small place, a mere shed, much like one of those described above, but the air has not to pass through the dipping room to it. The dipping room opens into one corner of it, and this again into the drying room. The business is now removed into a new place in Whitechapel. There were two men, one dipping, one carrying away matches, and about 7 or 8 boys and as many girls, apparently between the ages of 8 or 9 and 12. Only vesuvians, or the better sort of cigar lights, are made here. It is a much less disagreeable, and I believe less dangerous process.

Ann Simlich.—Her husband has been here a year, but 10 years in the trade as an employer. Has been in Dublin and Edinburgh. He was at it from a boy in Germany ; at Hamburg she thinks. He has found it hurt him. "Of course it hurts all of us, it takes a great effect of us all, not the vesuvians but the matches," (*i.e.* common lucifers.) Would sooner earn just a living at this, than double at matches. They are dreadful work. It catches hold of some more than others. But she does not think there is any business over the whole world worse for a man's health than matches. It's so bad for the chest ; that is where it takes her. After she had been at work she lay down and could not fetch her breath and had to be propped up with pillows. She is much better now. Used to be very strong before ; said to her husband "if you go into match making again I wont go with you." He is very strong against it. He said yesterday that he could mention eight who died in the hospital of it. It's of this jaw disease. Their jaws come out. When she saw one (naming him) coming she used to say "O ! don't let that man come in, I can't bear to look at him." Two or three of them used to come and work for her husband without jaws. It is the dippers mostly that catch it. Some of them smoke at their dipping and draw it, the phosphorus she means, in with their pipe. Then they can't eat their victuals of a morning. Has had dippers with her who couldn't

eat a bit of breakfast. But some go for years without hurt. One of their dippers died, and they got sick and tired of match making and left it off. Said to a man coming from match making to work with them (at vesuvians), "It's another life for you." "It's as much difference as to sit in a palace and in a cold room." The people who make matches wont tell you so much about. They keep it very close. In some parts abroad there's a Government "different from here you know," and they don't allow matches to be made by some people.

Richard Osman.—Has worked in the lucifer manufacture for 30 years. Is now 50. He dipped for about 12 years, but has left off that for 14 years. Has never felt any ill effects from it at all.

Cleanliness as regards the personal habits is one of the principal things. There is a great deal in that. Used to gargle his mouth out in the morning with water, spring water if he could get it. Used to drink a great deal of milk too. It has a tendency to coat the stomach.

Has seen a great many taken with disease, all in the same sort of way.

Philip Macaulay.—Has just come here. Has been at matches 15 years, 10 as a dipper. Was never troubled. Took no particular care further than to keep himself clean. That is the principal thing. The composition got under the nails like this (his hands were daubed with it), and so on to their food perhaps. Some dippers smoke over their work. That is very bad. It is only natural you should draw in the steam then. For seven years was the only dipper. Worked for half an hour or so at a time. Wouldn't do more. Nobody could. It would kill yon. But so long as you work only at intervals and keep yourself clean you are all right. A man must be particular about that, and how he eats his victuals. When he had done he went and washed his mouth. Perhaps others would go and drink a pot of porter. Cleanliness is the only thing. Afterwards he was with two or three other dippers ; one lost all his teeth. But he slept in the factory as often as anywhere else, and of course had his food there. "He was not of a good class."

The composition for dipping vesuvians is made chiefly of chlorate of potash and saltpetre. The red phosphorus is used for the "flaming fuzee."

The children live near here and go home to meals mostly.

"This is a very good thing you are about. Of course it can be managed. Children should not be worked too long."

Henry Thomas Lamb, age 8.—Goes home for meals. Don't get to school at all now.

Betsy Barber, age 11.—Has her meals here. Has an hour for dinner. Eats it in a few minutes. Goes to school on Sundays. Works by the day.

Charles White, age 10.—Boxes. Goes to school on Sundays. Can read, write, and sum. Twice 12 is 24. Five times 7 (after a slight pause) is 35.

CONRAD SIMLICH'S, ELISHA'S YARD, BETHNAL GREEN ROAD.

Two small rooms only. In one the owner alone works. Here he dips and puts the vesuvians to dry, and stores them when packed. In the other room are one man and six boys, who do the remainder of the work. The rooms have no unpleasant smell.

Conrad Simlich.—Has been in the business 22 years. Here 5. Makes vesuvians, paper fuzees, and flaming fuzees.

The hours are from 8 to 8. Was going to try 6 to 6, but could not get the boys to come so early. Dipping the vesuvians is very short work.

Worked at common lucifers in Bavaria for 12 years. Found it very bad for his chest. "It chokes you of course." It must be the sulphur he thinks. Would not go to it again for anything, not to make much more money. Where he was in Germany, in a moderate sized factory, a person dipped during the day at intervals for a time amounting perhaps in all to 1½ hours. Not more.

For tipping the vesuvians uses the white phosphorus. Uses a little of the red for the flaming fuzees.

In his country Bavaria, a proper house must be built for match making, and every branch of the work carried on in a separate room. There must be regular windows like there are in a good house. All children are obliged there to go to school twice a day until they are 12, so they cannot be worked under that age.

George Reed, age 12.—Worked two years at this. Comes at 7 or 8, goes at 7, 8, or 9. Breakfast at 9. Dinner at 1. Tea at half past 6. Goes home to dinner. Is quarter of an hour going there, quarter of an hour there, quarter of an hour returning. The other quarter of an hour he plays perhaps.

Goes to school on Sunday afternoon. Never on week days. All of them but one live in same court and go to the same school. It is in "Tholomy's" parish.

Edwin Sage, age 13.—Been two years at this. Gets his dinner at his master's. Has things all the week at his master's instead of wages. Goes to the same school.

Thomas Bright, age 12.—Does not go to school. Used to go before he came here every day. Used to read out of the Bible. Forgets it now. Could read then very well.

GEORGE WILLIAM HATT'S, 48, PRINCES STREET, KENNINGTON CROSS.

The manufacture is carried on here in one small, low, ill-ventilated room by the proprietor and his wife, with the help of one young man, one boy, and a girl who works occasionally.

George William Hatt.—Has been here 14 years. Worked in the business four years before. Used to dip the best part of a day then. Nobody could stand dipping without breaks in it. Never suffered himself from it. Knows those who have. This was through their own fault in not being clean. Always washes after dipping.

Emma Dudley, age 16.—Works occasionally only. Has a cough ; it will not go away. Did not catch it here. Cannot speak strong. Used to go to school sometimes when in the country. Does not go now.

[Note.—This girl has nearly lost her voice.]

James Barker, age 13.—Has been here four weeks. Was at another lucifer manufactory before that for three years. Fills frames and boxes. Comes at 6. Goes at 5 or 6 in the evening. Has his meals when he has got the "clamps" ready ; generally about 8 and 1. Brings his meals with him. Eats them in the yard. Has not been here a wet day yet.

Used to go to school on Sundays. Used to hear teacher read. Does not go now. Never heard of France.

Likes this work.

SIMMOND'S, TOWER STREET, SOUTHWARK.

This is quite a small factory, consisting of only one small room, with one window which does not open. The air is very oppressive here from the fumes. Only the master and two boys work here.

The cifer Match anufacture.

London.

J.E. White.

Miles Askew.—Carries on the business under the name of "Simmons," to whom he was formerly foreman. Has been in the work since he was 9. Is now 32. Has dipped for 10 years.

Has understood that the work is very injurious, and that there are not many who can stand it above 7 or 8 years. Thinks it is only by cleanliness that you can save yourself; particularly by keeping the hands and nails clean. Always washes his teeth every other night with camphorated chalk. Did that because some time ago he saw a notice by a doctor recommending it to painters and match makers. The work affects some in the chest, some in the jaw. Has known 8 or 12 bad through the composition. It was through the phosphorus getting into their gums, and then they had to go through an operation and have their jaw out. Some have died. Has known but few personally who have done so. Makes "clam-dips." They are much less injurious than the bundle dipped, which generally are much stronger. This is because the bundle dips contain more phosphorus. The mixture for them is sometimes 1 lb. of phosphorus to 1½ lb. of glue. Uses much less phosphorus himself, but more potash. Some use antimony; does not himself, because it makes the matches so "sharp." When more phosphorus is used some other ingredients can be dispensed with, and it does not require the labour of rubbing it small on a stone as better compositions do.

Never used red phosphorus. Has heard it has no vapour. It would be a very good thing to use it for that reason. Bundle dips have to be shaken out to separate the matches. That is very bad work for everybody; worse than standing over the basin, because the fumes come out more than in the dust. It is often done by little boys.

Afred Potter, age 14.—Here eight or nine months. At Simmons' for 2½ years before that. Has "filled" all the time. Comes in the morning at 7, stays till 6 in the evening or 7; sometimes till 9 or 9½. Works by the piece. Earns 7*s.* or 8*s.* a week when he works overtime. Other weeks earns about 6*s.*

Has breakfast at 8½ in the work room, and half an hour is allowed. He takes less. Dinner at 1; an hour is allowed, but he comes back in half an hour often. Goes home for dinner. Has tea at home.

Has not got a cold; coughed because there was something in his throat. Does not often. Is not short of breath. Can always eat his breakfast. Sometimes his teeth ache a good deal.

Takes home his wages; gets 6*d.* a week for himself.

For the last six or seven months has gone to school on Sunday evening. Never went much before. Can read a little. Went to learn some good. Went of his own accord. Learned "about how to serve different "people," and "about different countries." Used to go to Surrey Chapel; heard about different things; "teatotallers and things."

Alfred Serle, age 13.—Here seven months. Has the same times for work and his meals as the other boy, but has to wait for his dinner half an hour for his sister.

Has toothache quite bad; two or three times a week. Has lost several teeth; this was quite lately. They did not trouble him before. It was not half a year ago. They have been so loose, pulled them out himself. Broke one or two in trying. Does not wash his teeth often; not above once a week. Washes at home after work. Could wash here in the kitchen if he liked. Never did wash here. Can always eat. Can breathe well.

Earns 5*s.* or 6*s.* a week. Takes it home. Has 2*d.* for himself.

Goes to school on Sunday from 2½ to 4½. Learns to read. (Reads short words well.) Used to go to Webber Row day school, but not regularly. That was for two or three years. Used to do "the 'rith-"metic and sums and all that." Learned "about "the map." There are Europe, Asia, Africa, and America, France, Spain, Italy.

SAMUEL SAVAGE'S, MINT STREET, BOROUGH, SOUTHWARK.

This factory is small, and consists of two departments; a low dark room on the ground, so dark that in most parts of it I could not see to write, though it was a bright sunny afternoon, for making matches, and a room up stairs, though not over it, for making boxes. In the latter girls alone are usually employed, though, as when I was there it was under repair, all were working down stairs together. Here, however, the dipping and drying room are separated by a brick wall from the work room, with no direct communication but a small hole. This, however, was done by stopping up the doorways, &c., only because required by an insurance office, who would then, I understood, consent to insure the work room. No mixing or dipping was going on, and the part devoted to those operations was airy.

Samuel Savage.—Has carried on business here 20 years. Knows that this trade is said to be very unhealthy, but thinks that depends upon people keeping themselves clean. One man who worked with him afterwards went to another place as a dipper and lost his jaw. That man smoked a great deal.

Thinks it would be a very good thing if the business were put under law. It would keep out those who do not carry it on in a proper way. That is desirable, because when matches are of an inferior class they are more unwholesome, being stronger of phosphorus and not so tightly bound, so that they evaporate a great deal more. When matches are dipped in bundles they must be shaken out to get the heads apart, which would otherwise all stick together. When they are shaken a great deal of vapour is given off, which is very bad for those near it, as bad as for those who are at the dipping.

I examined seven other witnesses, children and young persons employed here. They stated that their usual hours of work were from 6 or 7 in the morning till 7 or 8 in the evening, with meal times, but I elicited from them nothing further of importance.

HILLIER'S, CARLTON PLACE, CUDWORTH STREET, BETHNAL GREEN.

One building at the back of some houses, in a small thickly-peopled street, being divided near the middle forms two shops, one for cutting the wood the other for all the remaining parts of the work. The latter, the match shop, is entirely unventilated. There is, however, a door to the outer air, and another into the wood shop, and one pane was broken out from a window near the dipping place not made to open, but in such a position as to be of scarcely any use.

In the middle of the shop, just behind where three boys work, and only three feet from the back of the nearest, was the only stove, so hot that the mere stopping a minute or two to speak to one of the boys threw me quite into a moist heat and made me go outside, and on putting my hand on his shoulder I felt it quite hot and baked. On this stove the sulphur was being heated, and when used

for dipping is set on a stool in the narrow space between the stove and the boys' bench. The composition must be heated there too, as it is the only stove.

The matches when in frames are set to dry on rafters running across the shop about two or three feet directly over the boys' heads. When in bundles they are put on a box turned up on the ground a few feet off, on which they are also "rolled out," but by men. The same common blue composition is used here for all the matches, whether dipped in bundles or in frames.

The dipping plate, set on a wooden bench, though not in use, had not been cleaned from the composition, and the blue smears left on it were giving out vapour.

This shop also served as a store room for the matches when packed, which were close by the stove and boys.

A man whom I noticed with his face bandaged up went out without my observing it and did not return, but from the account which I could get of him from others, he has never dipped or done anything more than cut and box, which he has done for many years, but he has had likewise for many years abscesses under his jaws still open.

Charles Allen, age 12.—Does not know his age; thinks he is going 13. Has been here two years or more. Fills frames and rolls out sulphur bundles. Always stands there just against the fire; it makes him very hot; does not catch cold when he goes out; only has a headache at times.

Hours are from 7 to 7, sometimes to 8 or 9, not later. Breakfast at 8½, half an hour; dinner at 1, an hour; tea after work. Knows the times by Letchford's bell. Has all his meals at home. There is no place here at which he can wash.

Is paid by master, so are the others. Gets 3*s.* a week. Mother keeps him with it. She makes boxes at home for this place.

Was at school for a month; knows his letters (does) but cannot spell. An eagle is "a great big bird what " is up at the public house at the corner;" there are live ones too in the trees in the forest. Knows of the Queen.

Frederick Lovett, age 12.—Helps William Hore (a big boy) to fill, and is paid 2*d.* a day by him when he comes, that is twice a week; but he has only just begun.

Has been to the ragged school under the arch (of the Eastern Counties Railway) and two or three other schools. Could read. Only knows letters now (does). Never heard of people going on the sea. A river is water.

Alfred Gold, age 15.—Fills, and cuts and boxes when busy. He and the two other boys roll out the sulphur dips.

James Hillier.—Does not think children any use much before 12 or 13. Would not mind a bit not working after 6. It does not pay him to light up.

Does all the mixing and dipping himself. Has been amongst the work for 20 years, ever since he was 8. Never took any care of himself; thinks it best not to do so; has seen people wear things over their mouths, but that draws it in just as much.

That man who has his face tied up has had the abscesses for several years; he has never done anything to injure him, but has only put matches into boxes and such work. He had been at large places years before coming here. It cannot be from the work, and he was so bad only through the people tampering with the places so at first instead of his going into the hospital.

MRS. RIGBY'S, GROVE PLACE, KENNINGTON GREEN.

Mrs. Rigby employs only one man and her own two sons, boys of 16 and 13, but does but very little work, and that not at all regularly. One of the boys I saw playing about in the street, an untidy, but sharp-looking and healthy boy. She hoped that I should not ask them anything about long hours, as she could hardly get them to work at all. She thought there would be nothing that I need see in the work rooms, which were two, in the yard.

WILLIAM RIGBY'S, GROVE PLACE, KENNINGTON GREEN.

Only one boy is employed here now besides the master. The place is a mere shed four or five feet broad, but is a good deal exposed to the air. This one boy was very ragged and miserable looking. He is employed, I was told, chiefly out of charity, and is very irregular in his attendance.

George Armstrong, age 12.—Does not know how old he is (looks about 12). Goes home to his meals. Has no fixed time for them.

Goes to a Sunday school. Used to go to a day school before he came here. Has no home. Can read; cannot write much.

WARREN AND CO.'S, THOMAS STREET, STAMFORD STREET.

This is the only manufactory which I could find that I did not visit, it being intimated, after several delays and objections, that "the children did not want any schooling." My only information from another source was not favourable to the place.

MR. ARTHUR ALBRIGHT, Patentee of the Red or Amorphous Phosphorus. 27th May 1862.

I am one of the firm of Albright and Wilson (formerly J. and E. Sturge), of Oldbury, chemical manufacturers. For 17 years we have made the common phosphorus, and we supply it in large quantities both for the home and foreign match manufacturers, and since the year 1851 I have also been the patentee of the amorphous or red phosphorus. Though it is at least doubtful whether it would be to our advantage that the use of the latter should supersede that of the former, yet as it would be a great public benefit I have made great efforts by experimenting and in other ways to introduce the use of the latter article. Its manufacture was a matter of considerable delicacy and difficulty, and one attended with such danger of explosion that my former partner insisted on its discontinuance. The danger, however, being now understood, is easily avoided by caution. It was at first very difficult to get an article almost entirely free from any particles of phosphorus in its common state, and without this purity the article would be wholly unfit for the manufacture of matches. The manufacturers who have tried the amorphous phosphorus and given it up may have done so in consequence of its then imperfect purity. I find that the nearly pure article which I can now always get answers perfectly, and I have large quantities

The Lucifer Match Manufacture.

London.

J. E. White.

of matches made with it, which for ordinary use are perfect.

As some proof of the general sense of the evils arising from the use of the common phosphorus which is felt abroad, I may mention that we have sent out there some tons of the amorphous phosphorus, the greater part of it for the purpose of experiments. In the case of two large foreign manufacturers, however, I saw myself when abroad that it was applied in the manufacture of the Lundstrom patent safety match in such a careless and imperfect way as to give no chance of its succeeding. I have the conviction that the same happened in other cases. In France, however, matches have been made under the same patent which answer perfectly. In England the patentees of safety match have only just established a manufactory.

In France a majority of the principal match manufacturers, as I have understood, petitioned the government to prohibit the use of the common phosphorus as being necessarily so injurious to the health of those in their employment. No matches made with the common phosphorus are allowed by the French government to be used in the army or any government departments, and the Lundstrom or safety matches are used in their stead.

I believe that in parts of Germany quite a horror of being employed in the match manufacture prevails, on account of the disease occasioned by the phosphorus. I was told by manufacturers in Dresden and Cassel that in consequence of this feeling they found great difficulty in getting hands enough. To one of these the labour of criminal prisoners was farmed out by the government, and in Hesse Darmstadt also I know of a case where prisoners, several hundreds I believe, were so employed.

The bad effects of phosphorus are more felt abroad, where the common kind is used in such large proportions, than here, though these effects may have been diminished now by the precautions taken there, as in Bavaria, Prussia, and Austria. In Saxony the king himself took a great personal interest in trying to provide a remedy. In Prussia no person with decayed teeth is allowed to enter the employment, and there is a compulsory periodical inspection of the state of the teeth of all employed.

In a treatise by two German doctors, Von Bibra and Lorenz Geizt it is stated that out of 100 people employed in three manufactories at Vienna, 22 were attacked by necrosis of the jaws.

From other statistics it appears that out of 68 cases reported in Germany 15 died, 15 remained under treatment, 15 recovered; the remaining 23 remained unknown.

In one manufactory in Nuremberg, where 60 or 70 were employed, there were 15 cases of disease and 8 deaths.

A French chemist and physician of eminence, who has studied this subject, and has also, I believe, been officially employed in inspecting the match manufactories of Paris, and whom I know personally, in a treatise entitled "On the necessity of prohibiting the "making matches with the common phosphorus," states that out of 60 cases of jaw disease, not taken from the whole of France, which had come under treatment by some French medical men, more than half had ended fatally; and that the remainder had the bone removed.

In another treatise he quotes 42 cases of poisoning by matches alone, 15 criminal cases, 9 accidental, and 18 of suicide.

I have read in a German medical periodical that in a not badly conducted match manufactory at Berlin employing 35 hands, out of 16 people subjected to the more immediate influence of phosphorus, there were found at the same time four cases of jaw disease.

In England, though the match composition contains a less proportion of phosphorus, yet the use of glue involves the necessity of dipping on a warm surface, which increases the evaporation of the phosphorus. Abroad, where gum is used, the matches are dipped cold, a fact which probably prevents some mischief there. The heat increases the evaporation of the phosphorus.

I have heard on the best authority that in one large manufactory in this country the deaths from phosphorus disease for many years averaged one a year, but I believe that no other English manufactory suffered as much, and in this one the evil is now effectually remedied.

The vapour of phosphorus is very subtle, and produces effects upon people in match factories though not manually working there. I have been told by a foreman that on going up to bed at night he often looks all over light; and I am also told by a manufacturer that the same vapour has been seen upon the hand of a child who, without touching the matches, was employed only in putting the lids on to the boxes.

In Germany the drying of the matches is considered by medical men one of the most dangerous parts of the work, as in that process all the phosphorus evaporates from the outer surface, leaving a shell of mere gum; and a case is mentioned by one of them of a number of birds in a cage placed near a large quantity of newly dipped highly phosphorized matches being all killed by the vapour.

The use of the amorphous instead of the common phosphorus is a certain and simple, and indeed the only known complete means of preventing the evils involved in the match manufacture; though these might be, and probably have been, much diminished by a few simple precautions. If the use of a smaller quantity of phosphorus could in any way be brought about, that would be so far a remedy. But while so much is used, it is absolutely necessary that the mixing and dipping should be conducted in separate buildings, and the latter process in such a manner that all the fumes should be carried away at once by a strong draught. The drying stoves or rooms should be isolated from all the places of work, and should not be entered while heated or while filled with matches recently dried, without a complete renewal of the air of the drying room by introducing currents of air. But it is far better to avoid the use of stoves altogether, as is done at one factory, by the means of fans.

Every person who has handled the composition or matches should have the means of washing in soda and water after leaving off work. Soda neutralizes the phosphoric acid. Matches should not be stored in the rooms frequented by the workpeople, as a great amount of vapour is always escaping from them. It is above all essential that all the buildings in which people are at work in this manufacture should be spacious and well ventilated. But many of the details of importance to be observed in conducting this manufacture are very well set out in the report of a scientific medical deputation delivered at Berlin, and which may be found mentioned at page 232 of "Schmidt's Jahr-Büchern Gesammten Medecin, Band 99," published at Leipzig in 1858.

[Note.—The Report here referred to suggests many precautions as of importance to be observed with a view to the preservation of the health of those employed in the match manufacture, some of which seem embodied in the suggestions made by Mr. Albright. The substance of the rules recommended, which go more into detail, are to the following effect.—J. E. W.]

The scientific deputation recommends for the preservation, as far as possible, of the health of the workpeople as follows:—

The factory should stand in as open a space as possible.

The workshops must be on the ground floor, lofty, viz., 16 or 18 feet, and vaulted, and with no dwelling room or other workshop adjoining.

There must be at least two large rooms and a small room between.

In one of the larger rooms the splints are to be put in the frames.

The Lucifer Match Manufacture.

London.

Mr. J. E. White.

In the smaller, at the back, and built of stone and vaulted, should be the drying place. In the front may be the sulphur and composition vessels, if these operations can be carried on while the drying stove is empty; if not, there must be a separate room for them.

In the other large room the matches should be taken out of the frames and packed up.

Each day when the workpeople leave the factory the rooms must be washed, and the refuse burned in the stove, or in a separate furnace, which leads into a chimney.

The refuse must not be thrown out on to a common rubbish heap.

In order to place the health of the workpeople in match factories under official medical control, the scientific deputation recommends as follows:—

The regulations in force in other factories (in Prussia) relating to young people employed there should be extended to match factories.

The manufacturer must keep a register giving certain particulars relating to the workpeople.

The register must contain the rules of health of importance to be observed, and a caution to the workpeople, to put them on their guard, especially as to the state of their teeth.

The health of the workpeople must be under the care of the district medical officer, who must have power to enter the factory at any time.

Any manufacturer who neglects any of these rules, and has a case of phosphorus disease occur amongst his people, is to forfeit his licence.

STAFF'S, GREAT CAROLINE YARD, NORWICH.

Norwich.

Norwich has a great number of very long narrow yards, unpaved or roughly pitched, with often a gutter in the middle, and small houses, workshops, stables, &c. running along each side. In one of these is this factory, very small and rough, as may be supposed from the fact of the wood being dried for use at a bakehouse. The wood shop is sunk below the level of the ground, and is so low and ill-lighted as to have more the look of a cellar than a work place.

The match shop across the way is so narrow that the work benches on the opposite sides are not more than five or six feet apart. The only window is blocked up with a shutter, a little light coming in by that and by the door from a small ante-room, in which the matches are dipped in sulphur, and also as bundle dips in the composition, and which smelled very strong and close. The flat ceiling is propped up to keep it from falling. A more gloomy place, or one more unfit for such work is rarely found. But fortunately the amount of work done here seems to be very small, only about half a dozen, besides the owner, including two or three of his own family being employed in both shops. There is no drying room, and the matches are left to dry in the shop.

The answers of a boy, the son of the owner, show that the darkness of his mind is of a piece with that of his work place.

John Staff.—Has been in business here 21 years. Does not want children under 10. Would rather there were a law that children should go to school. They ought to. It would be better for the population and all the same for the business if all had to do alike. Would as lief have eight hours a day as any time. No objection to any laws if all had the same. If it raised the wages his neighbours could not get labour cheaper than he, so it would make no difference.

George Staff, age 12.—Lives with father (the owner) over the wood shop. Works just as it happens, generally from 7 to 7, not longer.

Works at the splints and cleans the bundles out from the sulphur. Takes the bundles from the dipper (his father) and puts them along the bench to dry. Sometimes cuts them. The stuff gets on his hands at times and burns him, but does not choke him. Had the ague last summer, but nothing else the matter with him. Breakfast about 8½, and dinner at 1. Has half an hour, and an hour.

Went to an infant school, but has never been to any other. Knows the letters. Cannot spell. Never heard any one preach or pray in his life. Has never heard of a Christian. Does not know whether he is one or not, or what being christened or baptised is. Not heard of the Gospel or Jesus Christ, or know whether He was a man. Is sure he can't tell me. God "takes care of "people who behave good to Him." Does not know who made the world, or men, or who was the first man. Does not know whether heaven is a good place or a bad place. Has heard people say that good people go there. Has not heard of hell. Has when people are swearing.

Henry Barker, age 10.—Only three weeks here. Comes at 6½; stays till 8 or 7 or 7½. Breakfast at 8½; half an hour. Dinner at 1; an hour. Goes by a factory bell near. Is a learner. Gets 1*s.* 0½*d.*

Went to a day school for three years. Goes on Sunday. Can read, write small copies, and do long division. Knows of Samuel and Joseph.

BRITTON'S, LITTLE CAROLINE YARD, NORWICH.

The end of this yard where the factory stands is open to the meadows and a river, and therefore airy. The match shop is a narrow, but clean and light room. The dipping, however, is done at one end of this, close to some children, with some, but little, ventilation above, and the matches are set on racks near to dry. The box making and wood cutting room are each separate, but in the latter there is a circular saw, as well as the bands that work it, so open as to look very unsafe. Water can be had for washing, and there is a closet, but the door of it is close to the dipping place.

The owner, a very intelligent and courteous though, it seems, poor man, said he tried to manage the place as much like a home as he could, and this seemed borne out by my finding two little girls at work pasting boxes in his own house, in a neat room, in which his wife was sitting.

I was told that the parents of one of the boys (John Colt), who was wretchedly ragged, had, through the drunkenness of the father, sunk from a very respectable position in London to being almost dependent upon charity. The mother's training shows traces of habits not always found amongst the very poor.

Mr. John Britton.—Has had the business 16 years. Has not seen much of any bad effects on the health. Knew two men at one place who dipped bundle dips whose jaws were diseased by it. Another who worked for himself, only dipping now and then, was bad in the same way. He had led a very irregular life, and the doctor said that this and the medicine which he had taken were quite enough to account for the disease in him.

Wishes "particularly to impress upon the Legisla-"ture" his objection to "bundle dips." They must be rolled out while damp in order to separate the

The Lucifer Match Manufacture.

Norwich.

Mr. J. E. White.

matches. This must be done while they are damp or else they would catch fire, and when they are damp there is much more evaporation, so much that you can hardly see across the room. It is usually done by boys. Has heard boys say that when doing it they have drawn in so much of the phosphorus that it has come out through their nose as if it was all fire.

That objection is on the ground of humanity; but there is another. Bundle dipping is much the cheapest way of making matches, and those who will not consider the health and life of their people, can undersell those who do, and draw away their trade, which is a great discouragement to conducting the manufacture rightly.

Once made some matches without sulphur or smell with the amorphous phosphorus, but owing to the increase of the price was unable to sell them. A gross cost 3*s*. 6*d*. instead of 2*s*. Tried this kind for the sake of the health of the workpeople. You might dip your finger in this phosphorus, and he gave some to a gentleman to take as medicine, and it did him a good deal of good. The amorphous phosphorus requires more care in the manufacture, not because it is more dangerous, but because of the difficulty of getting it to the proper strength. Did not find it explosive. That must be from carelessness. There is great danger of explosion with the common phosphorus if not mixed with great care and thoroughly melted and mixed with the mucilage before the chlorate of potash is put in.

Did not try the amorphous phosphorus long enough to judge how either it or the matches would keep.

Would be glad of any improvement which would remove any danger or injurious effect of the work, because he would consider himself responsible for the lives of any who lost them in his employment. But the public will not consent to pay more unless it be forced upon them.

Any rules as to the employment of children and young people, if for the public good, he would very much like. They would do good rather than harm to all respectable businesses, and would stop those that are not so.

There would be no objection in making the children do less work in order to go to school, if all trades were on the same footing. If it increased the wages it would do no harm, as it would increase them in all trades alike, and, at any rate, whatever is for the real good of all ought to be done.

There is a great amount of drunkenness amongst the poor people about here. This is the great cause of their ignorance. They have hardly any minds. They live, even some of the steadier ones, to eat and drink, and please their own appetites, just like animals and no more. They know nothing of general information and do not care for it. However, he has some hopes of the rising generation, because more is now doing to train up children to sobriety, and to give them some education.

John Colt, age 11.—Here seven weeks. Fills frames and "pulls off" from the dipping. The stuff does not smell much, or make him feel sick, or drop over his fingers. "It is right dry." Smelled it at first, but is used to it now.

Comes at 6, or earlier sometimes, and leaves off at 8, or sometimes a little after. Breakfast at 8½, half an hour; dinner at 1, an hour: brings them with him and eats them in the yard or in the wood room. Master tells him the time, and there is a bell near that rings.

Gets 1*s*. 3*d*. a week and takes it home. Went to a Sunday school sometimes but never to any other. Knows the letters. Mother often learns him what she can at night, and teaches him to say his prayers every night and morning. Knows "Our Father."

George Duffell, age 8.—Fills frames and labels boxes. Here seven weeks. Had naught to do before. Played about the streets. Was at school for a few weeks, but left "when he got his finger scrunched in mother's mangle."

Comes at 6. Stays till 8, on Saturdays till 5. Breakfast at 8½, half an hour. Dinner at 1, an hour. Goes home to both. A bell rings in the mill yard. Tea after he goes home from work.

Sometimes goes to school on Sunday and to church with his sister. Learns to read. Only knows his letters. Mother never told him about Christ. Does not think she knows about that. She said that God "is kind and gets us victuals."

John Raby, age 11.—Has worked in the wood shop a year. Was at school for six years till he came, and goes on Sunday now. Can read, write a little on paper, and has done sums, "avoirdupois." Cannot do addition or multiplication now, he thinks.

Anna Leggatt, age 16.—Makes boxes. Has done so for four years. Comes at 7 or 7½. Leaves about 8. There is no proper time, but all come and go about the same time. Goes home to her dinner and takes the two little girls (Nortons) with her. All are paid by master.

Was at a week-day school till here. Has left off Sunday school. Cannot read more than quite short words (one syllable). (Says of Germany) "they learn different talk there."

Julia Norton, age 7.—Is exactly 7. Has been here two months. Makes boxes. Works with her sister.

Amelia Norton, age 8.—She and her sister both go to Sunday school, and went in the week till they came here.

Samuel Cubitt, age 13.—Here 5 years. "Does anything." Puts blocks into the splint machine. Comes and goes and has his meals when the rest do. Has them either here or at home. Has 2*s*. 2*d*. a week.

Has not been to school for a long while; "Ain't got good enough things." (Is very ragged.) Father is a scavenger. Knows some letters, (only two or three capitals). Has only been in a church or chapel once in his life. Might have heard about Jesus Christ but forgets. Does not remember hearing whether He was killed, or whether anybody was ever put on a cross "as he minds of."

LINCOLN'S, SYNAGOGUE STREET, NORWICH.

The match shop is of one story and ventilated by two skylights. The work benches, those of the fillers one side, and those of the boxers on the other, are covered with sheet iron, like those in the Bull Close factory, which belongs to the same proprietor. Racks for drying the matches run along the middle. Sand is provided for putting out the matches if they fire when being cut.

The sulphur and composition are prepared and the dipping done in a separate room. The composition is stirred by a youth of 19 who is the only person who works with the dipper regularly. The wood cutting shop is entirely separate. There are separate closets for the two sets of workpeople, viz., those in the woodshop and those in the matchshop, the latter being of a lower class than the former.

Mr. John Lincoln.—Has had the business just 20 years. Has never had any of his people with the jaw complaint or any other illness. One who dipped has got a bad cough, but that witness thinks is owing to his living in new premises. Another lately had the toothache, and the doctor thought it must be from the composition, but he is now quite well again. Does not know of the amorphous phosphorus.

Has quite altered his system and made a great improvement in his best matches, using about a quarter of the proportion of phosphorus that he used to in the others. Finds these better and sells them chiefly. Never used mercury in the composition. Some used fulminate of silver. That was very dangerous.

Does not like to have children under 10 years old. That is plenty soon enough for them to begin to work.

Till then they ought to go to school. The hours which he would like best himself for work are from 6 to 6, but he thinks 7 or 8 in a winter morning is quite soon enough for little things. If the time were shortened for schooling he could easily get more hands if wanted to make up, but some might perhaps give up employing children. All places where children are at work, especially where there is machinery, ought to be under government inspection. Has seen machinery very dangerous from want of being fenced off.

The children that he can get for the match work are quite the poorest of the poor and the lowest of the low. Does not know where they come from. He thinks more is done for children now than there used to be in finding them schools and amusement. The parents will not do anything themselves if they could. They will not give up their drink or anything for themselves for the good of their children or their education.

What he would think best would be for the children to leave work at 6 and go to school for an hour then. Nobody would object to that, and many would go.

Would not himself mind any good laws if they were the same for everybody. It would not be fair otherwise.

Edward Jolly, age 14.—Here 5 years. Was at another match place 4 days, but left because the boys knocked one another about so. Fills frames, and cuts and boxes.

His matches often catch a light, and smell a good deal then, and make him cough; that hurts him. Has had a cough for 3 or 4 years, at night most. It hurts him down low in his throat like a pin, and in his "lines" (loins). Can always eat well. Washes in the dipping shop in the same hot water as the dipper does, and so do the rest of them. There is a towel.

Begins work at 6 in summer, and at 7 in winter. leaves off at 7 in both. Never stays longer even if they are busy. Breakfast at 8, half an hour; dinner at 1, an hour. Goes home to both and never shortens the time. Goes by the foundry bell close by.

Is paid by the week, 2*s.* 9*d.* Has 1*d.* of it to spend. Father is in the workhouse with a broken arm, and mother is going to be with him.

Went to school for 4 or 5 years till he came to work. Goes to a Sunday church school, but not to any evening school. Does not know all his letters. Hears them preach and sing at St. Henry's Hall once a fortnight. Has heard of King David. He was Christ. Christ died to save our lives. Teacher tells them of America and all the world on Sundays.

[This boy is very hoarse. I was told that this was natural to him, and that his mother had a weak chest.]

Alonzo Meek, age 10.—Here 2 months. Fills. Works next to a man who boxes. Has a headache every day about the middle of the forenoon. Never takes anything for it. His throat does not hurt him. (He is very husky and pale.) The place smells of brimstone, but he does not mind it. Hands the matches to the dipper to be dipped, and puts them on the stone. They splash him when they are in bundles, but not when they are in frames. His hands get all over the stuff from the bottoms of the frames. It smells a good deal. Washes his hands after helping at the dipping. There is a dipping of about 40 frames at 7 o'clock, another at 10, and another in the middle of the afternoon.

Has his breakfast and dinner the same as the last witness. Goes home.

Is paid by the piece every Saturday afternoon. Gets 1*s.* 6*d.* or 1*s.* 4*d.* a week. Mother will lay it out to get some bread. Father died before witness was born.

Goes to St. Julian's Sunday school. Went in the week for 2 years till he came here. Knows his letters, but cannot read. Has not heard of London, or of the Queen, or her name. Does not know if it is Victoria.

William Back, age 11.—Here 3 years. Catches flakes from the cutting machine, Goes home to his meals when the others do. When the foundry bell rings a bell is rung here for meals.

Gets 2*s.* 6*d.* a week. Mother has it all. Has no father.

Went to a week school for 4 weeks once, but never goes in the evening now. Does not leave off work till 7, and "tain't no time then." Goes on Sunday. (Can hardly spell.)

Often goes to church by himself on a Sunday. A clergyman is "what preaches about God and says He helps them all to be good people." Bread comes from wheat. Meat from a cow. Mutton "comes from a pig; don't it." Gets meat two or three times a week. Gets a bullock's liver and makes a dumpling of it.

LINCOLN'S, BULL CLOSE, NORWICH.

This manufactory stands quite at the edge of the town, and within reach of fresh air. It was built for the purpose about a year ago, and is of one story long, very well ventilated, whitewashed, and clean looking. Iron is used instead of wood for almost every thing, working benches, drying racks, &c. This is not only much safer, but much cleaner, not holding or drawing in the composition or dirt from the matches, and is more easily swept. The dipping is done at one end under a flue like the opening of a chimney, but broader and shallower. It does not however strike one as sufficient to carry off all the fumes. There was no dipping going on while I was there. At the opposite end is the stove for heating the sulphur, moveable iron dipping slab, and composition. The matches are not dried in a stove or put out of doors, but set up in racks in the shop. A box of sand is set by the boxer to put out the matches when they fire, and the boys who are in any way engaged amongst the composition or dipped matches have leathern aprons, to keep the phosphorus from their dress.

I saw, however, a boy of 12 (Walter Thacker) sitting on the hot iron top of the stove stirring a pot of the phosphorus composition with his face bent over it, and he was still doing the same when I had occasion to return about half an hour afterwards. This it appears he does four or five times in the day for as much as two hours altogether. His health by his account has not suffered, but his face is very flushed.

Walter Thacker, age 12.—At the work two years. Empties the frames when the matches are dry, and boxes. Also stirs the composition for two hours a day at four or five different times.

Hours of work are from 6 to 7. Has breakfast at 8½, half an hour. Looks at a neighbour's clock or guesses. Dinner at 1, an hour. Goes outside or eats on the stove here. The composition gets on his hands, but he washes it off in the pot (in the water outside like that of a glue pot) every time. Sometimes when he is stirring the stuff catches alight round the edges. The smoke does not take away his hunger. Has not a cough. His teeth have ached, but only once.

Gets 3*s.* 3*d.* a week. Mother allows him 3*d.* He puts that in the bank. Begun this year. Will have it out at Christmas and buy a new coat.

Went to a week school till he came to work. Goes every Sunday now, and on Tuesday evening from 7

The Lucifer Match Manufacture.

Norwich.

Mr. J. E. White.

till 9. Can read and write big and little hand on paper and do multiplication. A whale is a large fish.

John Crompton, age 15.—Three years at the work. Cuts and boxes. Does not mind the smoke when the matches go off. The window takes it. Hours are from 6½ to 7. Never longer.

Never went to a Sunday or week school, but goes on Tuesday evening from 7 to 9. Cannot read (reads words of two or three letters); cannot write or do sums except "the little ones;" learned at the evening school. Goes to a church sometimes.

MACE'S, RED COW YARD, POCKTHORPE, NORWICH.

This is in a yard out of a back street in a low neighbourhood. The place itself looks like a large hovel. It has three shops; two for wood cutting, which employs two men and four boys, and the third, which is entered from the others, for preparing the ingredients for the composition by "mulling," (pounding) them, mixing them, dipping the matches and boxing them, as well as for keeping stores in boxes. The master and three boys do all the work in this place. The roof is high, but not ventilated, and the windows are small, and the room gloomy, and blocked up with things of different kinds. The composition is mixed by a boy of 10 (William Maine) in an enamelled saucepan, which does not catch the composition and cleans easily (it is cleaned by a man); but the handle is upright which must almost unavoidably bring the face of the stirrer over the pot.

A boy (away during my visit) who generally cuts and boxes, said to be 16 (which however is his brother's age) is sometimes employed in dipping.

A very narrow passage winding by a privy leads to a "dike" of water, clear, but covered with green weeds, in which a boy told me he could wash if he wanted. It would require some care not to slip in from the steep bank.

Gilbert Mace.—Has been in the business eight years. Has not found it unhealthy. If anything his people have been rather more healthy than others. When the diarrhœa and small-pox were bad here, none of his people were bad. Has known dippers bad from the work, but it was from their own neglect in eating with the dirt on their hands and in the work place. Two were sons of the master. They had breakings out in their jaws and some of their teeth fell out. His own teeth are gone a good deal, but he had lost a good many of his own before he began the work.

If a match shop is low it is injurious. It is the steam from the phosphorus when the matches are first dipped. Always cautions his boys not to eat their victuals in the match shop, and does not allow it. That will cause rotten teeth. Has the doors locked during meal times.

Does not have children under 10, or care to do so. They are so much bother. Could do very well without working after 6. If some had to go earlier to school he could easily get more to make up. If he were under the same laws as every body else any law would make no difference to him at all.

William Main, age 10.—"Cases up," *i.e.*, puts the match box into its outside cover. Stirs the glue up also (the composition). Likes casing up the best.

Comes at 6 in summer, 7 in winter, stays still 6 or after. Breakfast at 8½, half an hour. Dinner at 1, an hour. A woman (a neighbour) tells him when it is time. Goes home to both. Tea after work. The other boys have the same times. Two of the boys don't go home to their meals. "They cut the mother off 1*d.* every meal." Can wash in the "dike" (a ditch near).

Sometimes burns himself when the stuff gets too hot. Wears two aprons, a leathern one at top to keep him clean. Sometimes the stuff gets up your nose and makes you sneeze. Makes him stop his work because he can't get his breath. That is when there is too much of the steam. Coughs then. Can always eat well. Never had bad teeth.

Gets 1*s.* 8*d.* a week. Has 2*d.* for self. Gives it to sister to keep in a box and buys shoes with a lot of it.

Went to a week school three years ago, and to an evening school two years ago for half a year. Never on Sunday. "I could learn none." (Knows A. B. C. not D., &c.) Went to church a good while ago and heard a preacher. Does not know anything of the "Bible" or "the Gospel," or "Jesus Christ," or "Christian." Thinks he is a Christian. When people die they "come to dust." Their "sould" sometimes "comes to angels," but "he aint heard of nobody." "Them what don't pray don't."

Henry Moor, age 16.—Works in the splint shop chiefly. His brother Robert cuts matches chiefly, but sometimes dips.

Was at school till he was 10. Goes to no school on Sunday or any time now. Can read a little, not write, or do any sums. Has tried but "could do ne'er a one." Has been to church a few times, but does not know what it is about. Could not understand them. When Noah was in the ark "all one city was drowned." Has not heard of an apostle, or of resurrection "as he knows on." Father or mother never told or learned him anything.

Newcastle.

TRESEDEN'S, OUSEBOURNE, NEWCASTLE.

A very rough place at the bottom of a steep piece of waste ground in the suburbs of Newcastle. The only workshop is part of a very large hovel or barn, from the other part of which it is only imperfectly divided. Everything is done in here, and there is no special ventilation, but the space is very large for the small number of hands, as may be supposed to be the case where a horse is put up at one end.

Mr. John Treseden.—Thinks any laws as to hours of work, ages, &c. should be the same for all manufacturers. Should be very much in favour of any if they were for the benefit of the children. It is a great benefit to all people to be scholars. They do not find it out till afterwards.

Does not quite see how the time for schooling is to be found, but an hour might be very well spared before dinner and another after leaving off work. That would suit all factories best, he thinks. If he had to work more children to make up for their leaving work earlier, he should have to get more tools (*i.e.*, frames); that would not suit, but would be the only difference.

There is nothing like having the school regular. He should find the children better ruled if they were a little scholared. A schoolmaster has opportunities of correcting and improving them, and of taking the wickedness out of them.

Thomas Graham, age 9.—Just come. Was at Peel's a year, Fills. Hours 6 to 6. Breakfast at 8, dinner at 1; each half an hour. Tea afterwards. Hears the bell going, then goes to his meals; all the others do too; he goes home. Gets about 2*s.* a week, piece work.

Went to school for a week three years ago. Does not know the big letters (does not). Never heard of an "eagle" or a "lion." Never of the Bible. Heard

some talk about Christ a good bit ago, three or four years, at a Ranter's chapel. Does not know anything that He did, or whether He was killed or crucified. Heaven is "up there?" (inquiringly). God lives there. When people die they go underground; they stay there always; there is no part of them that does not. Has a soul; does not know where that goes to or what becomes of it, either if he is good or bad; father or mother never told him about anything of the sort at home. Father is a lamplighter.

Margaret Dodds, age 11.—Works from 6 to 6½. Has breakfast and dinner in the shop here up by the fire; never makes it warm. Has burned her hand in "cutting down" matches; it was bad for four days. (Is tied up still.) The stuff does not come off on her hands. Has not good health; has bad headaches, since a fortnight. Has been at this work a year. Always washes before her meals in "the race," a brook outside (a scanty and hardly running stream which serves as a sewer to the hamlet); wipes her hands on her apron.

Gets 2*s.* or 3*s.* a week.

Never was at a day school; went at night in the winter, but "it's dune now." Knows a few letters. Goes to a chapel sometimes.

Samuel Brewerton.—Mixes and dips. Was born in the business. His father had a place. Father lost his jaw in St. Thomas in 1851; he had mixed at times, but not been at regular work; not a more cleanly man lived. Has known several others lose their jaws and also their lives. They all had to do with the composition. Thinks it is through the constitution. Learned smoking on purpose to keep off the phosphorus.

Mixing is the worst part. Puts the phosphorus into the hot glue first, then the other things, and stirs till it is cold, *i.e.*, about 20 minutes. A dipper should never be over the stone more than three days a week. Has lost a lot of his teeth, and has not a sound one in his head. Fancies it was through the business, but has had no pain.

PEEL'S, STEPNEY SQUARE, OUSEBOURNE, NEWCASTLE.

There are two departments of this manufactory, which is in the outskirts of the town, one for cutting the wood, the other for making the matches. The latter consists of a single shop of one story lately built for the purpose, under the directions of the dipper, a man of experience in the business. At one end is the sulphuring stove. Near this children, chiefly boys, fill frames. At the other end is the dipping place, with a window over it which slides open. Close to this is the drying room, with a flat top of loose boards, warmed by a stove, and close smelling. Beside this, and only a few feet from the dipping stone, are benches reaching towards the middle of the shop for the boxers, chiefly girls. The dipper, a sharp active looking man, acts as overlooker. This shops contains altogether somewhat over 30 persons.

The wood department consists of old and awkward rooms. The proprietor means, as soon as he can get more ground, to build new and more convenient workshops.

A closet is kept for the girls; none for the boys, nor is there any washing place, but water is kept in the workshop which can be used. The place seems carefully and well managed.

Mr. William Peel.—Has carried on the match manufacture here about three years. Built a new building for the purpose according to the suggestions made by the dipper, who was a man of experience in the work, in regard to the size, height, and arrangements of the place. Asked his advice, because he understood space and good ventilation to be necessary to make the business healthy. During the time that he has been here believes it to have been healthy; has known nothing to the contrary. Has not had acquaintance with the business or those employed in it elsewhere. Had at first a separate room for the fillers to work in, but found it necessary to bring all into the same, to be under the eyes of the dipper, who is also manager.

Thinks that regulations such as these imposed by the Factory Laws would not interfere with his business, or if they did, not more so than with the manufactures to which they apply already. Even if they did interfere to some degree, he would have no right to complain if they were for the common benefit. Limits to the labour of children should be fixed by law, if children are anywhere worked too young or for too long. People ought to be punished for overworking children. If the parents could possibly do without the wages, children should not work under 10 year old.

Would find some difficulty in allowing children to go to school in the day time. He could do the necessary amount of work by employing more hands, but that would require more space and more frames. Has far more frames than he requires to use at once already; but if he had not, the expense of providing more frames would be small, about 2*s.* 6*d.* a frame. Has about 26 fillers; they require from 80 to 100 frames, or about four a piece on the average. One child may use three, another six, according to their skill. The dipper does not begin dipping till several sets are ready for him. It is only in the case of the frame fillers that he would find a difficulty from their having to attend school. Would not find it in the box-making department.

It is absolutely necessary that some means of education should be found for the children, especially of the class employed in this manufacture, who are the very poorest and most ignorant. It would make them much more quick at learning their work and more steady and quiet. But most of all it is necessary for the sake of morality.

Has lived in the same part of the town (at some distance from the factory) for 20 years, and speaks on this point from full experience. The immorality of quite children, as shown by their language and conduct, in that and other bad neighbourhoods of Newcastle, is shocking. Quite little children use the most disgraceful language commonly in the streets, and mere boys and girls of 14 or 15 years only are still worse. From what he has heard and seen himself in the streets, has not the slightest doubt that at this age they have intercourse with one another. Sees them about together in the streets in such a way as can leave no doubt of it. At that age they are often quite drunk and fighting and brawling in the streets through the night, so as to be a perfect nuisance to all the neighbourhood.

The other night heard some one strike a girl, and looking out of window saw two lads pulling about a girl who was quite drunk. One said that he wanted to take her home to her mother's, and that her mother had told him he was to take her (the girl) there to pass the night with him. She was so drunk she said she did not care where they took her so long as they took her somewhere.

This kind of thing is not at all uncommon here. No one could have any idea of it without living for a little time in such a place. Has often been obliged to apply to the police, but this cannot stop the evil.

Thinks that it is only by providing education for these people that their condition can be improved. They are in utter ignorance now, and many of them have no idea even that they are responsible for their actions. Thinks they do not know even what will be the consequences to them, because they do not

The Lucifer Match Manufacture

Newcastle.

Mr J. E. White.

give themselves leave to think of that. They grow up like this because their parents were so before them, and unless something can be done to improve them they will bring up their own children in the same way.

Thinks that there is no hope of private people being able to do anything of importance in this respect. The clergy of the church here do a great deal more now for schools and the people generally than they used to do, but still those who will trouble themselves about it will be but few in comparison and helpless against such great difficulties. The parents themselves seem not to take any care or thought at all for their children, but the great majority even entirely encourage them in bad ways of all kinds, not only indirectly by the grossness and profanity of the language which they use to them, but even by instructing them in dishonesty. The "vulgar" words are more common than any other. Thinks they have no idea that it is swearing, and would be unable to speak without it.

Thinks that in such a case nothing can be done unless the Government does it. If Government could secure some education it would be the very best thing it could do. Is quite surprised at what the Government help seems to have done in the national schools adjoining his other premises. These schools were built 10 or 12 years ago. They had for some time only 40 or 50 scholars each, till six or seven years ago, when they got Government grants and Government teachers, and the numbers have since increased to towards 400 altogether, and those of a very improved kind to what they were before.

If a manufacturer had to see that his children attended school, it would be better not to leave the matter entirely to him, but the appointment of a proper and efficient teacher should be secured, and this cannot be done unless there is some official authority to enforce it. Any good education enforced by the Government, so far from being an interference, would be the greatest benefit they could confer on the lower classes, and through them on the country.

Richard Raftry.—Has been dipper here 1¼ years, and for 6½ years before at Letchford's; was at Palmer's eight years as mixer, and superintended the place, and was at another place besides. When he mixed he wore a respirator for a bit, but did not like it, and it gave him cold when he took it off, so he gave it up. Never saw turpentine or soda used. Did not get his hands in the stuff in mixing, or find the smell unpleasant or injurious in any way. The vapour was rising all the time, but not so much as in the dipping. Never had a day's illness all the while. A man died at Letchford through his own neglect, and had very dirty hands, and smoked over his work, which is very bad. Has not known others bad. Dips some days for as much as six hours or more, with intervals.

Has three children at work here. They have not had a day's illness. Overlooks the children here in the match shop. None are here for long together. When they have been a short time here they do not want looking after. All go home to meals. Allows none but Patrick Welch (19) to help him. Welch puts the matches in the drying room and gives them out to the lasses. Dips frames and bundles both. The bundle dips are stronger and cheaper, and have much more phosphorus. He and Welch alone shake out the bundles.

Janette Poingil, age 12.—A year here. Boxes. Hours 6 to 6. Sometimes stays till 7. Has stayed till 8 or 8½. Has breakfast at 8, half an hour. Dinner at 12, an hour. Tea after work; all at home. A bell rings at all these times. The stuff comes off the matches just sometimes. Washes it off at home. There is no place to do it here. Does not burn her fingers to hurt. Is always well.

Earns 4*s.* 6*d.* or 5*s.* a week, according to her work. Was at a week school for five years till here. Goes on Sunday now. Can read, write, and sum. Was at reduction when she left school. At school reads the Bible and they ask questions. It is about Paul and the Saviour. Goes sometimes to the Primitive Methodist chapel.

Anna O'Brien, age 11.—Has her hours and meals the same as the last witness; all meals at home. Gets 1*s.* a week.

Was at school for a year when about 2 years old. Never was learned anything at home. Has heard about God from father. (Reads a little.) An elephant lives in a foreign place. (A very ragged dirty looking girl.)

Elizabeth Spratt, age 13.—(Does not know her age herself. Looks about 9.) Fills. Has been here 2½ years. Always goes home to meals. Gets 1*s.* 3*d.* or 1*s.* 5*d.* a week.

Goes to school on Sunday. Has never been at any other time. (Does not know a large "O" or "A.")

Henry Elbet, age 9.—Came to-day. Goes to Sunday school.

Richard Anderson, age 8.—Here 2½ years. Fills. "Drops (work) at 6." Sometimes it is 6.20 or 6½. Home to his meals; never comes back before the time. Has good health.

Gets 3*s.* 6*d.* a week usually by piece work. His highest is 6*s.* 6*d.* Gets about 3*d.* from mother according to his work.

Goes to Sunday school; was at a week school till he came here. Can read (but only words of two or three letters). Does not know in how many days the world was made.

John Turner, age 14.—They know their times for work and meals here by the bell at the foundry, and by the trains passing. There is a well here he can go to if he likes to wash.

Goes to no school now. Knows short words (of two letters only). Does not know what an "ox" is; never heard of one. Witness came from Glasgow. Meat comes from the fields from wheat and corn. That is flour and meal wheat. There is other meat, as apples and fruit. At the butcher's there are sheep and cows. The Queen is in London and reigns over her kingdom.

Elizabeth Bows, age 16.—Makes match boxes. Has a girl under her to learn. Sometimes a girl takes 5 weeks to learn. Pays her then 1*s.* a week. Other girls all do the same. Gets about 7*s.* a week herself usually by piece work.

Goes to a church school on Sunday. Went at nights last winter. Never at any other time. Cannot read. People have ships to go to sea to Hull and Hamburgh. Twice 15 is 40.

ROBSON & CO.'S, DIANA STREET, ARTHUR'S HILL, NEWCASTLE.

This is one large dark building, formerly a sand-mill, where the match business has been very lately started. The arrangements at present are very imperfect. The dipping stone is put on a shelf with no ventilation near. Close to it boys fill frames. On one side a bench runs along a dead wall, perfectly dark. On this and the shelf above some matches are stored up. At this bench the matches are boxed. I was told by the foreman here, what is certainly the case wherever the work is on a small scale only, "It's only a bairn's job." "Couldn't afford to keep bigger ones."

Alfred Brand.—Manages here. Has been in the business all his life, and in all parts of it, and in big places in London. "It's not a very healthy business, you know." George Bayley is in the infirmary here with the disease. Witness thinks he got it at Long's. It is only the dipping affects them. Knew one or two that died of it.

Robert Welch, age 7.—Has been here six weeks. Comes at 8, goes at 7. Breakfast at 8½, half an hour. Dinner at 12, an hour. Tea after work.

The Lucifer Match Manufacture.

Newcastle.

Mr. J. E. White

Was at a Catholic school a good bit ago. Was out in the street mostly. Learned to read and write, but "cannot read or write now." "G-o-d" (in large letters) spells "be." Does not know about Him. Has heard say that He was "kaind," and lived up there, (pointing). They said "He was a nice man and was "kaind to us." "He was 'the first man.'" Never heard of Adam. Has heard of Jesus Christ that "He "was kaind to us, and a nice man." They see about that in the Bible. Has "seed a Bible plenty of times" in the shops and his own house. "Knowed nicely "it was a Bible," though he could not read anything. When people die "they gang to Jesus." If they are bad they do the same. "It's the same to be "good as bad." All gang to Jesus. Mother said that when folks be bad they gang to Jesus. Has heard a prayerman preach in a house.

William Wilson, age 10.—Here 6 weeks. Hours 7 to 7. Breakfast at 8, half an hour. Dinner at 12, an hour. Goes home to them. Has tea after work, or sometimes before he has done. Hears the "buzzer" (a gong at a place near) call, when it is time. Has day wages.

Has been at a day school. Goes Sunday sometimes. Can spell (short words). Twenty-four and 6 is 28, is 30. France is a country. London is a country; is a town. The Queen's name is "Frances."

GEORGE BAYLEY.

A patient in the Newcastle infirmary. Has worked at matches since he was 6 or 7. Is now 27. Has been at large places in London and Glasgow, and at several small places. Has filled and boxed, and for eight or nine years has dipped. Began that at 18 in London.

Was young, and did not know of its being unhealthy. Sometimes took castor oil after his work. Thought it did him good. It was his own idea. Was very careful every time after dipping to wash his hands and clean out his nails from the stuff. Sometimes had his meals at his work. When very busy had to get them as he could. Used to find a nasty taste in his mouth in the morning. Has it yet.

About 18 months ago a pain came on him like a toothache. It was on him for weeks and weeks, and perhaps went away for a week; but he seldom got any rest. Was three or four weeks together and scarcely got a wink. It went on for about six months. Then his face swelled and broke, and he had some ease. Came first as an out patient to the hospital here; then came in. Has had a piece of the bone taken out from the outside, and has had no pain since. It was the upper jaw. Men say it is more usual in that.

Had great pain a fortnight before.

The place he worked at last was Liddell's, in Ousebourne, near here. There was no house near. It was airy, and there was ventilation over the dipping stone and in the roof. Dipped bundles and frames both. Found the bundles "the most disagreeablest." Could see his dress shine if it was dark. "If you get wet "and sit by the fire, you smell fearful. No one who "is not used to the work could set aside of you." Always changed his clothes after he had done work.

At Liddell's he dipped from 6 to 6, with intervals. Could do 100 gross a-day so. At Long's he dipped all bundles. The others dipped frames. There was no turpentine or soda anywhere. Tied a handkerchief over his mouth, but it was no use. "You draw it in "all the same."

Thinks he is not near so bad as some of them. Has seen some with their head "as big as a bushel measure "a'most." Knew a lad of 19 who lost his jaw. He only boxed. Another of 22 or 23 lost his jaw. He used only to box and take the matches into the drying room. Has known five or six lose their jaws. Two or three of them died. Has not known women or girls lose their jaws.

There has been no scrofula or king's evil or consumption in his family. His brothers or sisters were never ill. His mother died at 98 and his father at 80. His grandfathers and grandmothers on both sides died quite old, two at 80. Never had a day's illness himself except the small pox. Never had syphilis. Had a glass of beer, but never went over the mark. Was never drunk in his life. Hardly ever tasted spirits.

[Note.—This man's face was bloodless and hollow. Beneath his left eye was a plaster covering the hole through which the piece of the jaw was pulled out, with festering matter around. The eye was drawn in and the red inside of the eyelid turned out. On the mouth being opened the sight was still more horrible. The upper teeth were nearly all gone, the lower going. The palate flat and without colour. There was a most offensive smell. The gums entirely gone from the upper jaw, leaving the bare bone grinning out, a living death's-head.]

MESSRS. DIXON, SON, AND EVANS, NEWTON HEATH, MANCHESTER.

Manchester.

A very large and interesting manufactory, two or three miles from the town, though amongst houses, consisting of several distinct buildings, in which every process of making the boxes, as well as the matches, is completed. The most noticeable points are the improvements which have been introduced in the appliances for dipping the splints in sulphur, the mixing the phosphorus composition, the drying the matches after dipping in the phosphorus composition, and the ventilation of the buildings already in use, as well as of some now in the course of preparation. Only wooden matches and Vesuvians are made here.

The sulphur is heated by gas in a boiler covered by a lid so arranged as to send all the vapour up a pipe flue direct to the top of the building, where it escapes to the outer air. Only grown-up men are employed in this part of the work.

The phosphorus composition is prepared in a separate, ventilated building, and is mixed in a closed churn, worked by a handle from the side, so that no person is exposed to any vapour in this process.

The matches are dried in a large building, well ventilated from the roof, and not, as is usually the case, by artificial heat or dry air confined in a close, fire-proof, and air-proof room, but by two large fans, each with three flaps, worked by steam, which revolve like paddle-wheels over the matches, and so rapidly as to cause a very strong draft. This was suggested by the Indian punkah, which indeed was first tried, but found to involve too much labour. The effect of this is to dry the matches with much less risk of fire than in the common way, and, what is still more important, to prevent the accumulation of vapour unavoidable in the common close drying or stove room, whether artificial heat be actually or often applied or not.

All the match buildings are of one story, and well ventilated from the top. One of the largest rooms has been made by throwing what was once several rooms into one. A new building is nearly finished, in which the dipping slab is to be placed immediately under a flue like a broad, old fashioned

The Lucifer Match Manufacture.

Manchester.

Mr. J. E. White.

open wood fireplace, looking straight up the chimney, which is divided in the middle so as to increase the draught. A screen is to reach down over the slab, only allowing the dipper just room to use his hands, thus protecting his nose and mouth from the vapour; and when the slab is not in actual use the screen is to be let down entirely to the ground, so as to prevent the escape of any vapour whatever from the slab into the building. This, the invention of one of the firm, is not, however, in a separate building, but in one side of a very large room, intended for a great number of people. The dipping slabs already in use are in the drying room, which has a very broad opening into the largest workroom, and in which several people seem to be more or less permanently engaged, and through which is a thoroughfare for all.

The matches are boxed in a separate room, entirely by grown-up women.

The bundles of splints, which have been dipped at both ends in frames, are "cross-cut" by four men in a very large building ventilated from the roof, and open on one side like a cart hovel.

The necessity of these improvements was suggested by the serious, and in several instances I believe fatal, cases of disease which formerly occurred here, including one fatal case in the family of one of the partners. It appears, however, as well from the statements of the employers as from external evidence, that no new case of disease has occurred within the last few years, *i.e.*, since the present improvements have been fully carried out. Cases are spoken of as under medical treatment at a later date, but these probably had first begun some time earlier.

Stronger evidence of the practical importance and efficacy of proper arrangements and precautions in the match manufacture cannot be furnished than are given by the history of this place. Some further details will appear from Mr. Evans's statement, given below. One of the partners remarked, incidentally, that they had found from experience that what was best for their workpeople was also most to the interest of themselves.

Mr. George Evans.—I am one of the firm, and have been manager here for 20 years, *i.e.*, almost since the manufactory was established, and while it was still on a small scale. During that time a great many improvements have been made in the place and the mode of carrying on the manufacture here. These were made in consequence of certain parts of the work, the mixing, dipping, and drying being found unwholesome to those engaged in them.

The disease occasioned was the jaw disease. The first case occurred about two years after I came here. This person used to mix. He was very careless, and would not attend to any good advice. He was a fine healthy young man, but I think he made the disease worse by liquors, which he took freely. After that we had several other cases; but no fresh case has occurred during the last five years, and we hope that now we shall have no more. We now use only one half the proportion of phosphorus which we did formerly, and have an improved mode of mixing the composition and drying the matches which has, I believe, made those parts of the work as healthy as any other.

The disease is caused very much by people being dirty, I believe, and the people whom we have been able to get here have been chiefly Irish of the very poorest class, and untidy in their habits. I have tried all sorts of means to make them more cleanly. I provided washing places, towels, and soft soap, as well as a tooth brush and nail brush for every person who had to do directly with the composition.

Having been told by a person who came from Pollak's at Vienna that creosote mixed with spirits of wine was useful as a gargle, I provided them with this also. But some of them tried to drink it as spirits, and of course took a dislike to it in consequence; and they could not be persuaded to use the other things, such as the water and soap, &c., to any extent. Lately, however, the class of people has on the whole greatly improved in these respects as well as in others.

One thing may, I think, have contributed to increase the disease. There was an idea amongst the people that a match put into the hollow of a tooth was the best cure for the toothache. This was quite a common practice. This was before the disease was much known, or supposed to be caused by the match making.

I found that the people who came, being very poor and unable to support themselves at home, were, with a few exceptions, entirely untaught, and utterly ignorant of the simplest things. Some, even upgrown people, when they first came, could not even tell the value of common coins, such as half-crowns, &c. There is a woman (Irish) who has now been here two or three years, and can only talk a very little English yet. She can hardly answer a question. She works well.

I have tried, as far as I can, to provide some means of instructing them. I have not started a school, but I have had a book-club on foot about three years, to which the members subscribe a small sum weekly. Though the numbers are not great, still I think it has been very useful. It has created an interest in books, and led some of them to buy books for themselves, besides what they get through the club. I have also given some dictionaries and spelling books myself. Amongst the English the favourite books are the "Life of Franklin," and books like Timms' "Things not generally known." The Irish seem to like Moore's Ballads and a History of Ireland. Some difficulties were raised by the priest at first. We subscribe to all the Sunday schools in the neighbourhood alike.

I think the people like to be helped, and find them grateful for it. But the Irish will avail themselves of all public charities, whether they are in need or not, though some of them are very saving. I once took their money and kept a banking book for each of them, in order to make them more provident. It answered very well for a year, but was left off on account of some turn-out. The Irish are very fond of novelty. I find they have a great sense of justice, and that by showing myself impartial between the English and Irish I can do anything with them.

I have a room set apart, with table and forms and a fireplace, as a dining room. The people go there in winter sometimes, but they do not seem to care much about it, or keeping it clean; and in the summer time they prefer the open air, and we do not like to force them in.

We have tried the red phosphorus, and have made hundreds of experiments with it, but find it very explosive, and there is great danger in making the matches. I fear there would be more risk to life in the use of that. The matches, too, become damp more easily than those made with the common phosphorus.

The jaw disease was caused by the common match, made with glue and phosphorus only. The Germans make matches with little else than phosphorus and gum. That is why they have more disease than the English have. The English match has a great deal of chlorate of potash, which is a sweet thing and harmless. Still we mean to make many more experiments with the red phosphorus, and I am sanguine that in time we may succeed, and once I thought we had nearly done so. Mr. Dixon has gone on for several days together with a scientific chemist and the patentee of the amorphous phosphorus, trying experiments which are all registered. But they were not successful. We should be very glad if we could use it. We are interested in every way to do so. So little would be used that the difference in price would be quite immaterial even to us as the manufacturers.

Our feeling is very strong in favour of the Factory

Acts, and we think that they have very much improved the condition of the people engaged in them, and also of others around by setting a good standard to the rest so as to create a feeling against abuses of overwork of children or others. The regulations of the factory laws as to the ages of children, times of meals, &c. would either make no difference or be a positive advantage to us, except that if the children's hours of work were shortened for the purpose of schooling we should probably cease to employ children under 13 at all. We could not get a sufficient number of hands except when other trade is slack, as now. Still I think it might be managed by arrangement, and we should gladly put up with some inconvenience for the sake of the benefit of those who are less able to help themselves and need assistance. There is no question that it is most important for the welfare of the children in all respects, both materially and otherwise, that they should if possible be supplied with the means of education, and it would be much better for the country.

[Note.—This statement was read over to the senior partner, Mr. Elijah Dixon, and entirely concurred in by him.]

Richard Toye, age 15.—Here six years. "Carries off," *i.e.*, takes the frames from the fillers as they bring them, and hands them to the dippers. That is his work from one day's end to another. Has been at that 18 months. Used to "set-fill" before. Comes here at 4. Gets up at 3 because he lives in Manchester. The watchman wakes him. It takes him ¾ of an hour to walk up here. Comes at 5 all the winter time. Stays till 6. Often gives over sooner, if it is hot and the matches are fiery, or if it is wet weather. Has breakfast at 7½ in summer; at 8 in winter. Is allowed half an hour. Dinner at 12; has an hour. Has tea after work at home. Goes out to his meals to a house. Works with the dipper. There are two dippers.

Each dipper has one boy to "carry off," and an extra hand to help, and another to dry them, *i.e.*, to turn them over, because one side gets dry sooner than the other. They always keep going. Very seldom stop at all. Stop a little bit sometimes in hot weather when the matches are so fiery. That hinders the cross cutters, and the dippers and their helpers have to wait till the cross cutters are ready. The hot weather hinders them because they cannot cut them so fast for fear of fire, and they have to stop to put them out.

Often gets his hands splashed with the stuff. They cannot eat their meals without washing their hands. Gets his hot water for washing and for breakfast at the same place (a house near). Pays 1½*d.* a week. There is a well here and buckets if he likes, but no regular place. "Plenty of folk has soap." They keep it in their pockets.

Is always strong and well. Does not mind the smell. Finds it queer sometimes. If his clothes get wet he can smell them. "They stink him out of the room "pretty nearly." Has not got another jacket. Works in his shirt sleeves. If you are in the dark and rub your breeches a bit you can see them "shine like a "cat's eye." Can see smoke rise up without rubbing if you "sit still and take notice to it."

Mr. Evans pays the dipper. The dipper pays witness. There are six "piece gaffers." The two dippers and four cross cutters. They shove all the work off in a week, and get paid according to what is done. They pay witness, and the "taker outs" "and carrier offs." Sometimes in a full week makes 12*s.* or 13*s.* Generally 10*s.* or 11*s.* Takes it home. Father and mother allow him 1*s.* or so.

Has been very little to school. Went seven or eight years ago. Goes on Sunday now sometimes. Can read (reads "Her Majesty," &c.) Cannot write or do sums. Goes to a chapel on a Sunday morning. Has heard about the Bible. Has not taken much notice of it. Adam went into the garden and ate forbidden fruit. There were not others before Adam. "There was God afore him, I reckon."

Richard Connor, age 15.—Here five years. Fills sets. Comes at 5 or 6. Does not work regular times. Gives over at all times; at 7 sometimes. Has breakfast at 8½; ½ an hour allowed. Dinner at 1; an hour allowed, but sometimes he takes only half an hour.

Went to a day school before he was here, but not after. Cannot read. Does not know the Queen's name. Does not know if it is "Sarah." Has heard of Victoria. A preacher talks to you.

Henry Bulton, age 11.—Here three weeks. Went to a day and Sunday school for two years. Can read a bit and write a bit.

James Lee, age 12.—Here two years. "Laps up" boxes in the paper covers. Comes at 6. Goes at 6, but sometimes stays till 7. Works by the piece.

Has breakfast at 8½. Looks at a clock in the room to see the time. Eats where he stands at work. Takes about 10 minutes. Begins work again at 9. The others that lap up do the same as he does. Has dinner at 1; an hour. Sometimes begins again before 2; so do some of the others. Tea after he leaves work. Always washes before dinner at a bucket. Lets his hands dry themselves.

The "mizzles" left that swelling under his cheek. Was always well before. Has toothache sometimes, not much. Never ached where the swelling is.

Takes wages home. Mother gives him 1*d.* a week. Earns 5*s.* 6*d.* in a full week: gets 2*d.* then. Hardly ever has a full week. Works for William Gregan. He is the man that laps up. The other boys that lap up work for William Gregan too.

Does not go to any school. Went 4 years ago every day. Can read a little. Writes a little bit. Can write his name. Can do "substraction" and addition. Ninety-nine and 2 is 992. Has heard some one preach about twice. People say prayers to God. Heard that at church.

John Scott, age 9.—Here a year. Fills frames. Comes at 5. Begins work then. Comes in winter at 6. The others come at the same time, all but the boxers. Leaves off at 6, never stayed later. Has breakfast at 8½. Takes about 10 minutes. Goes home for it. Begins work at 9 again. Dinner at 1. Goes home to it. Begins work at 1½ or ¼ to 2, according as the sets are dry; the others begin at the same time. "Not so many goes home" to their dinner. Washes sometimes before he goes home at night. Has tea after he goes home.

Is quite well always. His throat does not hurt him.

Earns as much as he can earn. That is about 3*s.* a week. Gets 1*d.*, about, for himself. Works for Mr. Evans.

Goes to school on Sunday. Did not go last Sunday. Went to a day school a bit till here. Never goes to an evening school. Learned to read. Cannot read at all. Used to read his A B C. (Knows some only of the capital letters.) Never did any figures. Goes to a chapel from school on Sunday. It is Father Daly's chapel in Newton.

Michael Johnstone, age 13.—Here 2 years. Fills. Comes and goes like the last boy. Has breakfast where he works, at 8 or 8½. Pleases himself when he will have it. Begins work again directly. Might have half an hour if he liked. The others please themselves. A good many of them begin again as quickly as he does. Has dinner at 1 or 12½. Pleases himself about that too. The others do the same. Eats at his bench. Most of the others eat at their benches. "Washed me last night after I'd gone home." Washes his hands sometimes before dinner. Wipes them on his mother's apron. His brother does much the same as he does.

Feels himself very ill in his inside sometimes. Feels as if he were going to be sick. Is sick sometimes. Sometimes cannot eat his breakfast. Has his coffee hot. Gets hot water from a woman across the road at 1½*d.* a week. All that live in Manchester do the same. Most of them live in Manchester. Has to get up by 4 o'clock. A "knocker up" comes to the door and wakes mother.

The Lucifer Match Manufacture.

Manchester.

Mr. J. E. White.

"The mother draws my wages." Gives him 1*d.* or 2*d.* a week.

Goes to school on Sunday at St. Michael's in Manchester. That is a Catholic school. Never went on a week day. Never goes in the evening. Cannot read at all. Learned his A B C. Can go all through it. Heard somebody talking about the Queen. Knows nothing about her. Is not sure it is Victoria. Does not know just. Has heard of God. He is a spirit. He takes care of us. They teach us "Our "Father who art in Heaven" at school. Can say that all through. They teach all the boys that.

Elizabeth Ann Greenwood, age 11.—Here 2 years. Fills. Comes at 5 now. Comes at 6 in winter. Always goes at 6; never stayed later. Breakfast at 8, half an hour. Has it when the dippers come in to work. They go out half an hour first. Goes home to breakfast. Always stays half an hour. Dinner at 1, at home, when the dippers come back. They stay an hour at dinner; sometimes only stays half an hour. Tea after she gets home. Is pretty well. Takes wages home. Mother buys her clothes. "Evans pays me."

School on Sundays at "a Methody school." Not always. Never went on a week day. Can read a little. (Does not know a capital B.) Has been to a chapel about three times. Has heard about Christ.

Martha Cheetham, age 15.—Here a year. Fills. All come at 5 in summer, and 6 in winter, and stay till 6; has breakfast at 8; dinner at 1; both at her bench. Always takes half an hour for breakfast; an hour for dinner; sometimes takes less. brings her breakfast; brother brings her dinner. He comes up from Manchester to school near her; he is 7. Cannot get clean water here without she goes outside in Newton. Has a little sister here of 11; Her sister comes and goes and has her meals with her; takes home all the wages to mother; her sister's as well as her own; only her own name is in the book. Gets a little more by her sister working; her sister gets nothing; but mother buys clothes for both.

Goes to Sunday school; never was at a day school; can read a little (reads). Cannot write at all; never tried to do any sums; knows what they are. Can count up some figures in her head; can count what she earns.

Has toothache, "not so much;" has not got all her teeth; lost one towards a year ago; lost two more together some time afterwards; they broke away.

"Margett" Connor, age 16.—Here 6 years. Not regular. Is very often ill. Has been to a factory in a "throstle room"; gets better wages there. This agrees with her health better, so she comes here. Could not eat when at that factory; can eat here. Supposes it is coming out here in the morning. Takes an hour to walk, unless she walks sharp. Has the same hours of work and meals as the other fillers. Eats in the work room; so do the others mostly. The boxers work longer; they are mostly women; the least of them is 18.

Works by the piece. Mr. Evans pays her; takes it to mother. Came and asked for work herself.

Has never been to any school. Has never been taught anywhere by any one. Can spell; practised it herself. Her brother brought books from school. Expects to read soon. When Father Daly wanted to make a school for the lads that work in the shop, he asked for money for one week; all gave. The "looker on" made the lads go. If they did not he "sauced" them next day—scolded them she means; the young men used to go too, "them that could not write." Goes to a Catholic church. Knows about the people in the Bible; cannot think of any names at present. St. Paul was a good man. Never heard tell about Abraham. Heard tell about St. Peter and St. John, &c.

Mary Scott, age 6.—Does not know how old she is; knows she is not 7. Comes to help her two brothers. Lives in Newton here. Came at half-past 5 this morning.

[Note.—Noticing so young a child pass, I followed to ask her age, but she ran away in great alarm till stopped by some of the elder children who saw that I wished to speak to her. She had come as the very young do, unknown to the employers, who say that for this reason they would like a law which enforced a watchful exclusion by them of any so young and useless. As it is, they perhaps do not notice it, and if they do they hardly like to object, as children are sometimes so sent as a means of getting them off their parents' hands for the day. But if it were illegal they say they should of course prevent the admission of any so young to the premises.]

CHAMBERLAYNE'S, OLD COAL-PIT ENGINE HOUSE, OSBORNE STREET, MANCHESTER.

Two wretched hovels under the same roof, standing in a deserted grassless space at the edge of the town called the "coal-pit." The factory was burned out a short time since, and the inside looks as forlorn and deserted as the outside, though there are no actual traces of fire; the fire could not be accounted for.

In one shop work the dipper and two boys, one filling frames the other "jobbing about" and helping. The matches are dipped in sulphur at a stove at one end of this shop, and in the composition in the middle. A hot drying room opens upon one end.

In the other shop there are a woman, four girls, and a boy. There was formerly a much larger business here, but it is now on a wretched scale, the owner who has lately undertaken it having another business in the town, and leaving the management of the match factory almost entirely to the dipper, only a rough workman. The owner said that he could not give his own time and attention till the business was likely to repay it.

A boy of 11, working here (John Stafford), naturally strong looking and well grown, was beginning to suffer in health; he had phosphorus composition dried in red splashes on his face and jacket, and a complete plaster of it on his waistcoat in front. Some of his teeth were decayed. The other children looked very grimed and ill-clothed.

John Stafford, age 11.—Here two years; before that at Horton's (a small match factory near) for a year, as a "boxer." Here he "rings" matches, *i.e.*, puts a band round the bundle for dipping, and "rolls out" the bundles. John Lilley (a boy of 12, absent) carries them into the drying room when dipped. Works from 8 to 6. Never makes any overtime. "Have us "breakfast" before they come. Dinner at 12. A bell rings at the railway close by. "Jimmy" (the manager) stops dipping then. Never begins work again for an hour. Washes his hands in the glue pot; if that is too hot, goes to the pit outside (a large piece of puddle-water quite stagnant); only washes after the dipping unless his hands are dirty. John Lilley washes too. Jimmy pays him 3*s.* a week; takes it to mother; has 2*d.* of it.

The Lucifer Match Manufacture.

Manchester.

Mr. J. E. White.

Has been stronger than he is now. Was so till the summer began. Feels it in his arms ; feels weak there. His breathing is shorter than it used to be. When he first came he used to mind the smoke. That stuff on his waistcoat is from rolling out the bundles. All the smoke comes up in his face. He rolls out for an hour or two a day. When he is in bed he can see his shirt shining and smoking and smells it; can every day in the week but Monday. There is no dipping that day, and he has a clean shirt on Sunday for the week. "Mother says I stinks her out of the house. I "tell her I can't help it." She cannot pay for another shirt for him.

Goes to a ragged school on Sunday and Wednesday night. Three of them here go to the same school on Sunday ; they are in the second class. He can read a bit, but not without spelling. Never went to a church or chapel, but heard some one preach at the Sunday evening school "about all and the laws and the man "that's bad." The preacher said that it was much better for them to be good, and when they died they would go to heaven. He did not tell them of any one but the good and bad and Jesus Christ.

James Connor.—Keeps the boys here and dips. There is no disease troubles him, fever nor nothing else. The sulphur kills it all. "It is as wholesome "as a trout." Thinks the disease must be about those, who get it, all along. If there were consumption it would make it come out. There are no bad jaws in these small places, only in the large.

Jane Moseley, age 10.—Here a year. Puts bottoms into match boxes. Works from 8 to 7½. The same all the year round. Breakfast before she comes. Dinner (an hour) at 12, in the shop, or goes home. Tea after work. Could wash in the glue kettle ; does not. Her chin is gathering outside; it began about a year ago at home. The doctor says it will be a long time before it is better.

Mary (the woman) pays her 2*s.* 6*d.* a week. Mary pays them all. Mother allows her 2*d.* a week.

Goes to school on Sunday, never went in the week. Cannot read or write. Heard a preacher at the school, he told them that they should learn to read the Bible, and said that Jesus Christ was a good man.

Hannah Hampson, age 9.—Here a year. Has the same hours of work and meals as last witness. Dines in the shop, never out of doors. Knows it is 12 because a railway bell rings.

Mary pays her 1*s.* 6*d.* a week. Her sister brought her here to work.

Goes to school on Sunday, never did in the week. Cannot read or write. Never was in a church or chapel. Heard a preacher at the school. Forgets what she heard about Adam and Eve. Good people go to heaven when they die ; God came to help them go there.

Ann Jane Lilley, age 11.—(Gives the same account of her hours and meals as the last witness.) Does not wash after her work.

WILLIAM HORTON'S, OLDHAM ROAD, MANCHESTER.

The work is carried on here in the two downstairs and two upstairs rooms of what was built for, though it is not now used as, a dwelling house. The dipping and drying are done in the upper rooms where the boys work, but the amount is very small, and often neither is going on.

William Horton.—Has been engaged in the manufacture 16 years, during the last eight as an employer. Has mixed and dipped and done everything, but never suffered himself, in any way ; never knew any who did in a small place. Thinks the disease is found at the big places only, because there is so much dipping and so many matches always about there. In a small place like this there is dipping only three or four times a week, for a couple of hours each time.

The disease is in the jaw ; there is first a swelling in the face, which hardly ever goes down again for the rest of the life ; the teeth drop out, and then the jaw, or part of it, rots away. Never saw any one whose face went down afterwards. Amongst themselves they would say of a man who had caught the disease "he "has got the compo." It is the phosphorus in the composition that causes it. It is brought about a good deal by not being clean, and eating with hands dirty with the stuff. Has heard that many would eat their meals so, but that is not allowed now, and the men are obliged to wash. Has not heard of a case for the last three or four years. Knows a young man who got the disease from having a tooth, which was decayed and ached, pulled out by a fellow workman, a dipper, with his fingers, which had some of the composition on them ; soon after this, a week or two, perhaps, his face began to swell, and he went to the infirmary, and they broke out a part of his lower jaw, which was decayed. This man recovered and is now gone back to work. Thinks that when he caught it he worked as a "boxer." He was a lad not grown up, about 17 or 18 perhaps. Knows a woman next door here who has lost her lower jaw entirely from it. Knew another young man who lost his jaw and died from it ; he was a dipper.

Turpentine is a very good thing to use for rinsing the mouth out and washing the hands, and also for sprinkling the floor. Sprinkles his own floor with it. If your hands shine in the dark from having any of the stuff on, turpentine will kill it and put it out.

One of his own teeth ached once and he had it pulled out. There was a gathering coming afterwards and he could see something white at the bottom of the hole, so he put turpentine into his mouth and rubbed it outside and he got quite well. He left off work then for two or three days till the hole was healed up. That was when he was at work for himself, doing all parts of the work. Has not heard of anything else that is useful against the phosphorus.

Has not seen any of the amorphous phosphorus ; sent up to Dixon's for some once to try it, but found that Dixon had burned himself with it and had sent it all away. Sent for it because he heard it was better for the face, and would stand more friction without firing.

The foreign matches that are called the "silent "lights" have much more phosphorus than the English. Used himself to use equal parts of phosphorus and glue in the composition ; now makes it with only a third part phosphorus.

Knows the factory laws. Thinks they are very good. They rather set the fashion as to hours in other works. Thinks they would not interfere with him now at all. If the children had to go to school a bit it would do them a deal of good. They "have every "right" to go to school. He should only have to get a few more children, that would be all. Those that went to school would know how to work better and be more orderly and also more honest. Thinks factory children look tidier than others when they go to school. but always paler, because the air is so hot and confined there. Always thinks that those who have been to school make cleaner work hands and are more useful, and get a liking to cleaner habits.

Mary Ann Lancashire, age 11.—Here a year. Makes up boxes and lids. Comes at 6, goes at 6. The same all the year round. Meals at home. Breakfast at 8, half an hour ; dinner at 1, an hour ; goes when the railway bell rings. Mother has her wages and buys her clothes "coming Whitsun week." Gets standing wages, that is 7*d.* a day.

Goes to St. John's church school and to church on Sunday. Went on a week day when she never worked. Went since she was 4 years old. That was "in "another country," in Blackburn. Had to teach scholars herself when she was about 7, because there

The Lucifer Match Manufacture.

Manchester.

Mr. J. E. White.

was only one teacher. "I had about seven on me." Teacher used to teach them about the Bible when she had time. Has forgotten her reading now. (Reads a few words.) Could not get on at writing. Could count up a few figures. Does not know what 7 and 7 are.

Charles Lancashire, age 9.—Same hours and meals as his sister Mary Ann. Goes to school with her on Sunday. Can read a little (reads). Knows what "God save the Queen" is. The Queen takes care of us. God takes care of all.

John Richardson, age 11.—Has the same hours for work and meals as the others. Goes to a Sunday school. Went to a day school till "they brought me "to work." Can read middling. Can write middling. Can sum "multiplication and some 'straction."

John Dutson, age 15.—Here three years. Helps his master and boxes. The other boy helps too. Comes and goes when the others do. Never has anything the matter with himself or his teeth. Has not tooth-ache ever.

Goes to school on Sundays. Went to a day school before he came to work. Can read a bit and write a little. 95 and 5 is 97.

Liverpool.

N. MARTINDALE'S, LIVERPOOL.

A large factory very happily situated. It is almost out of the town and open to the sea shore, from which it is not far, so that there is plenty of space and fresh sea air. Great pains have been taken to improve the character of the buildings and provide ventilation and drainage. The greater part of the work, including the filling, dipping, drying, and boxing, is done in a very long building, (in which sometimes towards 300 people work) of one story, with a number of windows on each side, one side looking over the sea. So long as the windows can be kept open, as I saw them, on a fine day, little harm probably results. In winter however and bad weather the case must be somewhat different. The dipping is done near the middle of one side by the door. At one end a great number of boys are filling frames, in the middle children are cutting the matches and putting them into boxes; at the other end women and girls are making boxes. Along the side near the dipping place run racks in which the clamps are set to dry, and from which the vapour may be seen going up. Under these are fans worked by steam, not going however when I was there.

The sulphuring and rolling out the sulphur-dipped bundles is done in an adjoining room, cool and with a current of air through it, by a man and five boys. Boys also in a separate airy room wait upon the men who work the splint-cutting machines to pick up the splints as they fall. The matches made here are all wooden. There is a great deal of well-arranged steam machinery, and a very clean engine room.

A large flat-roofed basement room, with windows only on one side, which till the buildings were improved was used for match making, is now filled by women making match boxes, a much more suitable work for the place; and other women and girls are engaged in the same same way in a room upstairs.

The composition is mixed and prepared in a separate building by two men alone.

The general character however of the children in the large workshop is such as to give an untidy look to that place. They are mostly poor Irish, who when leaving their country in search of employment naturally make Liverpool their first stopping place, and take the first work that comes to hand, leaving it on the first opportunity of better employment, and when that is over will perhaps return again. They are very ragged and dirty, very few with shoes or socks. Altogether they strike one as a very difficult set to keep in anything like order. This character is given of them by the manager.

It is difficult to do much to improve or civilize a body so migratory. Their faults however seem to be rather those which lie on the surface than in more vital points. In spite of their look, their manners when they are spoken to are pleasing, and many of them show traces of a certain amount of religious instruction.

Mr. Jasper Capper.—For the last 10 years I have had the general management of the business of N. Martindale of Liverpool, including the blacking and match manufacture.

Being alive to the immense importance, I may say the necessity, of thorough ventilation in a manufacture involving so much danger, as proved by the experience of other factories, we have taken every possible pains to make the manufactory healthy. Within the last few years we have from time to time rebuilt nearly the whole of it in such a way as we consider best calculated to secure this object, and expended large sums in providing thorough drainage and other improvements. It was not however from our own experience of any dangers that we took these steps.

Since I have been here there has not been a single case of the phosphorus disease, and I believe before I came there had been only one, that of a woman who it is thought must have been predisposed to it. I consider the situation of our match manufactory very advantageous for the purpose, being outside the town and open to the sea air. Such manufactories ought not to be in towns. My belief is that the health of the people in our employment has been above that of people of the same class around them.

Almost the whole of them, with the exception of a few adults, are, I believe, Irish and extremely poor. Their irregular character is one of the chief difficulties which we have to encounter in managing the business satisfactorily and providing for their welfare. As a class however they have much improved of late.

Some time ago we were anxious to use the amorphous phosphorus, believing it to be attended with less risk to the health, and we gave it a fair trial, but the result was not satisfactory, and we did not take it up. I think it would be very mischievous for the law to interfere with the particular articles in use in particular manufactures. It could be justified only by absolute necessity for the protection of health. In this manufacture ordinary precautions, such as regard to ventilation, &c., have with us proved quite sufficient.

I have no acquaintance with the foreign match manufacture, and have not felt any occasion to inquire into it or the precautions observed there.

With regard to the general features of the Factory Laws I see no great difficulty in accommodating our business to them, though I think it does not require equally stringent regulations in all respects. For instance, I think some discretion as to the hours of work, provided they did not exceed a fixed amount, might well be left to us, even with advantage to the children. It might be much better in winter to work from 7 to 7 than from 6 to 6. As to any restrictions on working young people overtime, they would at busy times be extremely inconvenient to us, but I am

not prepared to say that we should have any right to object to such restrictions on the ground of this inconvenience. So long as overtime has nothing wrong in itself we naturally suit our convenience or necessity, but if there were any positive law on the subject we should of course feel bound to comply, and I am not sure that it might not on the whole be better. I am very anxious as far as possible not to interfere with the real welfare of the children.

The point of the Factory Laws in which I should see the greatest difficulties, would be that which requires so large a portion of the children's time to be given to school. It would be very difficult in certain times of the year, especially in the summer months, to find the larger number of children. As it is they then go off in numbers to other occupations. It is essential that, if any business is put under any restrictions of this kind, all should be, all at least that can possibly come in local contact with it; otherwise it would work very hardly.

I do not see that there need be any increased difficulty in the arrangement of the work in consequence of the children leaving slightly earlier in the day than the others. The parts of the work are not so necessarily dependent on each other.

I am sure that if it becomes necessary to provide the children with education, it can be done somehow. It may be necessary now. It is very important for the children themselves and the welfare of society at large, and would even be an advantage to us in the business itself. This must be the experience of all who have thought at all and speak what they believe.

I have considered the subject a great deal, and have often tried to think of some way of giving the children some education. But there are so many difficulties here that we have never succeeded. One would be removed if the schooling were compelled in all businesses by law. The children would not then leave us on that account.

But we find other difficulties here, owing to the differences of religion and the objections raised by one side or the other to any education not entirely in accordance with their own views. For instance, I think we might without difficulty make arrangements for getting the use of a schoolroom close to our manufactory. Indeed we have thought of applying for it for the purpose, but it belongs to, and in fact is underneath, a Methodist chapel, and I feel sure that the priests would not allow the children, who being Irish are mostly Roman Catholics, to attend such a place; and we have been obliged to give the idea up.

I think however that a less amount of time for school than is required by the Factory Laws would be equally beneficial to the children, while it would cause much less inconvenience to us. I would suggest that two hours a day in summer and 1½ in winter would be a good amount. It would be enough for regularity of instruction, and would add very considerably to the amount of labour left available for the purposes of our manufacture and their own earnings, which, considering the poverty of the class employed, is no light matter, and should have due consideration in any regulations on the subject.

John Fen, age 7.—Asked his brother just now how old he was. (I had asked him before and he did not know at all.) Here about 4 months. Goes to the drying racks for a clamp and fetches it to his bench. Takes up a handful and cuts it down and puts the matches into the boxes. Sometimes they catch fire when he cuts them. Puts them into a sand pot beside him to put them out. Often burns his hands then. "Look here at my hands with burns" (shows his palms covered with scaly scars, one showing a little blood). "It smarts me a bit then."

Six o'clock is the proper time to come. But sometimes comes at 7. Leaves off about 7½ or 8. Never stayed after 8. Nobody stays overtime. A bell rings for the clamp fillers to leave off, but the boxers stay later till they have boxed all the matches that are dry enough. Knows when they are dry enough by feeling at them with his hands. If they are not dry the stuff comes off. Goes and washes his hands then for fear the composition should come afire on his hands. It does catch alight sometimes, but he cannot see it much, it only smarts him. "It smarts the other boys too "o'their hands; you will see them a swinging them "like this" (shows).

Has breakfast at 8, when a bell rings. Begins work again when the matches are ready. Half an hour is allowed. The clamp fillers go to dinner at twelve when the bell rings. The boxers always stay and mind their work at dinner time. If he were to go out in the yard "it would be stole." Works by the piece. Makes 2*s*. 6*d*. Never has more than 1*d*. himself. Went to day school at the last races. Means before he worked here. Cannot read. Knows the letters (does so). Hears a priest at a chapel every Sunday. He tells them about bad people. Does not know what happens to people when they die. Thinks they die quite. Good people live in heaven.

Patrick Lovan, age 10.—Here a year. Fills clamps Comes at 6, sometimes 5. Has come at 5 and 4. Has done that in winter. There are lads filling all night then. John would not let him because he is too little. Has stayed till 9 at night in winter. That is the usual time then. The boxers stayed till 12. Big lads stayed and filled then. Only great big lads stayed to box too.

Breakfast at 8, half an hour. Dinner at 12, an hour. Goes home for them. A bell rings at 8 and 12, and in summer at 6, in winter at 9 for the little lads to go home. Never has tea till he goes home. Does not even in winter. Is very hungry then. Has not anything in his pocket to eat, because he eats all his dinner at dinner time. Some of the lads get bread and their tea fetched. Used to have his fetched, but the lad who lived in the house and had to bring it used to eat it, and "Mother wouldn't send it no more." Washes sometimes in the can. It is not so very clean. His teeth ache. Sometimes bumps come in his neck. They do not hurt him, but the pain does. Day and Sunday school till here. Can read. Goes to church every Sunday. Goes by himself. Sits on a form and sings the Prayer Book. The preacher never told him about the Bible. It is a big Prayer Book. It is about God.

[Note.—This boy has bad teeth.]

Richard Jones, age 7.—Here a month. Fills clamps. Comes at 6 or 8. Goes at 6. Has breakfast and dinner like last boy and goes home, Makes 1*s*. a week. Mother brought him here. Gives him 1*d*. The "missis" pays him.

Was at day school when he was not here. Goes on Sundays now. Goes to Elder Street chapel. Sings there. Cannot read it. Knows a few letters. Cannot write or do any figures. Has heard about praying. People pray to the children. "Seed a man—a priest—pray."

Thomas Fisher, age 15.—Here four years. Goes messages and things. Does different things in the engine and machine room. Cleans the engine on Friday and Saturday. It is stopped then. Never cleaned it when it was going. The engineer and he do it.

Works from 6 to 6. When they are busy in winter works till 8. That is for two or three months and every night. Breakfast at 8, half an hour. Dinner at 12, an hour. Has both in the works. Tea after 6 at home. Is regular to those times. The engine always stops for those times. Never saw it going at meal times.

Lost a finger 12 months after he came. Got it in the slide when cleaning it. It is the slide that makes the splints. Used to clean them every day. Since he has lost his finger another boy does it. Some one started the machinery. It ought not to have been going. Only one or two other boys have "just catched" their fingers with the match machine, but have done no harm much. They did it in scraping the oil. It was their own fault. They did it when the machine was going. The man who had charge of the machine

The Lucifer Match Manufacture.

Liverpool.

Mr. J. E. White.

had turned his back or so. He would not have allowed it. Does not often work in the match part.

Gets 4*s.* a week. Earns about 1*s.* at odd times by piece work at matches when not wanted for the machinery. Gets 2*d.* or 3*d.* for self. The manager pays him himself. He pays every body.

Goes to night school from 7 to 9. Cannot do that in winter. Always has a book at home then. Can read a Bible. Reads that generally and a grammar. Can write pretty fair. Can do sums ; multiplication, addition, practice, and rule of three. Has not come to fractions yet ; expects to soon. Was at a day school since six years old till he came to work. Goes to a church. Knows all about prayers.

William Flenn, age 13.—Here 6 months. Comes at 6 ; goes at 6, sometimes 7. "Shoves on." That is, shoving the 'clams' on the stone for the dipper. The fillers bring the clams up to the dipping slab and put them on the ground. A man gives each a ticket. Witness picks up the clams and "shoves them on." Sometimes cleans the slab by scraping off the stuff with a knife. Sometimes it all catches alight. It makes a great smell then. It does not choke him. The smoke all flies through the window.

For about 10 minutes before dinner and after work is over cleans the "racks" down with a shovel and a besom. The matches fall out of the clamps and makes the racks dirty. He cannot get that off. It is always on. He only just "cleans the floor like" of them. That smells very little. While the dipper is dipping, the "compo" flies off sometimes and gets on their flesh, and burns them. (Shows a festery burn on wrist.) It burns holes in his waistcoat sometimes. (I saw them.) There is another boy to his dipper. Another dipper dips, but only now and then in the day. He has two boys then also.

Works with the dipper all day. His dipper dips from 7 till 5. Only stops for his dinner. Does not stop else. Never at all except from 8 till half-past 8, and for his dinner. The dipper always has frames enough to go on with. Some one else dips from 6 till 7 in the morning and from 5 to 6. Witness is with the dippers his whole day, except at his meals and when cleaning the racks.

His hands get very much covered with the stuff, but he washes them every 5 or 10 minutes in the can. The water is changed about every half day. It turns colour. If it is blue compo it turns blue. His waistcoat shines in the dark. Does not smell except it catches fire, then it smells very nasty. Catches itself if he sits near the fire.

Breakfast from 8 till 8½. Dinner from 12 till 1. Does not begin ever before 1. Tea when he goes home. Has all his meals at home.

The work suits him very well. Can always eat well. Does not hurt his throat ; only coughs now and then.

The manager pays him and all. Gets 4*s.* and 4*s.* 6*d.* It is according to what the man dips. Mother lets him have 1*d.* or 2*d.* Mother brought him. John Macguire (the manager) calls the names.

Went to a school week days and Sundays. Left off and came here. Knows no letters. Has heard a preacher. God is a spirit. He punishes some people.

[Note.—This boy has splashes of composition on his forehead, his hands are blue, especially under the nails.]

Edward Murphy, age 9.—Here two years. Has boxed for a year. Does it in the same way as Johnny Fen. His matches catch fire. It does not hurt him. It pains him a good deal. Comes at 6 goes about 7½. Breakfast and dinner at the same times as last boy, and in the shop. Tea when he goes home. Washes his hands when the stuff is on them. There is only one can in the room, it is little. That bell rings now (1 o'clock) for the boxers to leave off. He sometimes leaves off earlier. The boxers have to stay about half an hour longer to empty the clamps. Does not begin work again till nearly 2. Has no tea at all here. Has supper when he goes home after work. Eats in the workshop, never does out of doors ; might if he liked. Nobody does. Washes his hands in a can by the clamps, but only when the composition is on them. Dries his hands on his "throwsers." Cannot see his waistcoat at night. Can see it on his hands. Can smell it in the dark ; cannot by daylight. "Mother seen it "on my feet Saturday night." Had his clogs on in the day before that. Does not wear them in a hot day like to-day. Feels bad here sometimes (pointing to his chest and also to his throat). Has hurt him about three months. Can eat well.

Works by the piece. Earns 1*s.* 8*d.*, or 2*s.* a week. A boy told him of the place, and he asked for it himself.

Went to a day and Sunday school and church before he was here for two years. Has no shoes now ; that stops him from going. Learned reading and writing and sums. Can write anything pretty near. Can do compound addition. Can do no higher. Heard at church about God and Christ. God made the world in six days.

[Note.—This boy has composition on his hands and smells strongly of it.]

John Fannan, age 10.—Here two years. Works at the middle match machine ; there are three. Pulls down the matches with his hand as they are cut, and carries them to the straightening room. The lads do that with their hands, and make a bundle as quick as the machine can make three cuts. Cleans the machine Saturday, and every night. Never does it while it is going. If he did he might cut his hands off. Never saw any lad cut his hands. The lads that work with the man what dips the sulphur bring the bundles to him out of the store room, and when they are dipped roll them out.

Works from 6 to 6. Has worked till 8 or 8½. Breakfast here in the machine room or at the sulphur stoves at 8. Has half an hour. Goes home to dinner at 1. Has an hour. A bell rings at 8 and 8½, and again at 12 and 1. The engine stops at breakfast and dinner time.

Has weekly wages, 3*s.* Has been a good while away from school. Learned to read. Cannot write or do figures. Can count. Five times 5 is 10. "Oh! "no ; I never practised the table." Hears about the mass at chapel. Hears in the streets about some being good and some bad. Hears about cursing and that. The people who curse are the bad people. Hears the people tell them they should not do such a thing. Knows what happens to good people when they die. They go to heaven. Heard mother say so. She taught him some prayers. Could think of one to night with his catechism book. Could without it.

Daniel Dunn, age .—Cannot tell how old he is (looks 16 at least). Has been here six or seven years. Cuts and boxes. Works from 6 to 6 ; till 8 in winter sometimes. Breakfast at 8, half an hour. Dinner at 1, an hour. Goes home for them. Tea after work. Is quite well. Teeth are quite good.

Works by the piece. Can earn 9*s.* in winter. Gives it to mother. Has a brother here grown up, who gives out the clamps from the racks to the lads to box.

Went to a week school a long time ago. But his father died when witness was quite young, and he had to go to work. Knows one or two letters, and does figures. Can count them in his head. Goes to his own chapel on Sunday. Does not know what he hears. The man preaches mass to the congregation. Has not heard of Abraham. Hears of Peter. Good people go to heaven. "Bad people doesn't." Ma told him. Ma told him about prayers. Said God would bless him. Never went to a chapel. Has been to a church. Not too often. Thinks it was a Prussian church. Mother is not a Catholic.

John M'Kay, age 12.—Here four months. Fills frames. Hours from 6 to 7 at night. Meals like the rest. Sometimes "stirs a batch." Stirs one every day. Morgan stirs the other. There are two pairs. Is about an hour in the day at it. Does it all once when he "commences" it. That on his hands is the

The Lucifer Match Manufacture.

Liverpool.

Mr. J. E. White.

glue and the phoss from stirring the batch ; always washes it off after he has done stirring the basin. Does not catch alight on his hands. "It never gets leave "to dry." Does not get near his nose when he stirs. It smokes up. Sits up on the bench beside where master dips. Puts the basin on the stone. One batch does for five or four dippings. It never takes his breath.

Has not been at school this good long time, Was at a day and Sunday school at a Catholic chapel. Does not go now. Reads a little. (Does without spelling.) Cannot write. Never did any figures. There are 18 pennies in 1*s.* 6*d.* London is a city ; a large one. The rain comes from the clouds. That stuff on his cuff there is from stirring the compo. Stirs it sometimes when Patrick Morgan does. Does not do it now because it makes him so sore in his arms. Makes them tired up at his shoulders. Has not stirred it more than eight times altogether.

John Somerton, age 9.—Here two months. Fills. Hours and meals like the others. Works by the week. Gets 13*d.* or 1*s.*

Has not been too long at school. Does not go now. Does to a Sunday school. Learns the first book ; that is spelling. (Cannot spell.) God made the sun and moon. God was the first man. Jesus was the first man. Does not know what Jesus did. The clergyman tells them most about Christ.

Isabella Sumner, age 13.—Glues boxes. Works from 6 or 7 to 6. Breakfast at 8 ; half an hour. Dinner at 12 ; an hour. Both in the shop. Has tea after work. Works for Bridget Maclachlan, who gives her 3*s.* a week. Washes in the boilers. The water is clean (Bridget Maclachlan says the other girls wash in the same way).

Went to week and Sunday schools a long time ago. Cannot read. Knows the letters, but cannot sound them. Has been to a church sometimes. A clergyman is a priest. Scotland is a town. London is not. A railroad takes people.

MR. WILLIAM KÖHLER, BIRMINGHAM.

Birmingham.

Is a native of Wurtemberg, and as an importer and seller of matches has for many years had business connexions with the largest manufactories in Germany, and personal acquaintance with them. The manufacture is carried on on a very large scale, much larger than in England. In his country there are government inspectors appointed to approve of buildings of all kinds, to guard especially against fire. There is a great dislike in Germany generally amongst the workpeople to working in a match manufactory, and many of the manufacturers whom he knows complain that in consequence they have great difficulty in getting enough hands. In many parts it is usual to employ prisoners for the work. The manufacturer contracts for their labour because he can get it cheaper. Ten years ago the labour of a full grown man could be got for about 2*d.* a day.

In several countries the government have watched the phosphorus disease very closely, and have contemplated stopping the use of phosphorus altogether. They have however, he believes, been obliged to give up this attempt as people will have matches, whatever may be the risk.

Is not aware of any particular precautions against the effects of the phosphorus vapour adopted in Germany, such as the use of turpentine, or of soda for washing. The great thing there considered is ventilation, with cleanliness, and exercise in the open air. The match manufactories there are out in open places, and are not allowed in towns. They certainly ought not to be, both on account of the risk of fire and also for the sake of the health of the workpeople.

The act of mixing the composition is itself dangerous, especially in England, where chlorate of potash is used, which is very explosive. In Germany they use no chlorate of potash, but much more phosphorus, viz., $1\frac{1}{2}$ lb. where only 1 lb. would be used in England. It is very improper to have the places for heating the composition and dipping and drying the matches in the same building with the rest of the work. They ought to be in quite distinct and very airy buildings. The dipper ought not to dip every day, but to change his work.

In most parts of Germany a child is not allowed to work in a factory of any kind until he is 12 years old. This is principally for the purpose of enabling them to go to school.

DAVID BERMINGHAM'S, THOMAS STREET, ASTON BROOK, BIRMINGHAM.

A newly built factory, standing in a garden on rising ground some distance out of the town, and therefore in a very airy situation. This is an indirect benefit of the endeavour of the borough magistrates to remove all "dangerous manufactures" outside the town. Wax vestas only are made here, and almost entirely by girls. The greater part of the "fillers" are in a room by themselves, but five or six little girls fill in the boxing room, where, as is usual, the vapour can be seen rising from the matches.

The only boy works in a separate room making round match boxes, with steam-worked machinery, and finishing the large packing cases lined with metal. Out of this opens a long room in which the wax taper is made in the afternoon by young women and girls. The composition is mixed and the matches dipped at one end of this room, forming the entrance to it, and just here close by the slab a young woman of about 20 is employed "patting-up." This is done at some places by a younger girl. There are two small and unventilated drying rooms, fireproof, and receiving artificial heat from an outside stove, when required. These were quite hot.

The garden space seems most valuable. It contains a pump, where water can always be had, though there is no regular washing place, and there is a decent privy. It must be a healthy work place.

Mr. David Bermingham.—Has lately established business here. Has worked in the business 29 years, and gone through all parts of it. Has never suffered anything from the work. Thinks this depended on his thorough cleanliness and his never dipping more than two hours a day. Never dipped all day. That must be very bad. Never used any other precaution. Knew a dipper who had suffered very much from the work.

Had himself an offer of working at a large factory in Whitechapel, but refused because the building was so ill arranged and crowded. Also because on the day on which he went to look at the place the people who came out looked so unhealthy. Saw two of the people come out with their faces tied up from the phosphorus disease. Another man there had his jaw out. Objects strongly to a factory in a crowded place, because there is always a quantity of phosphorus water that comes down from washing the slab, &c., which must be got rid of somewhere. While at one factory knew a clerk who had a lot of fowls die from drinking in a puddle into which some water ran from washing the slab. That must be very bad. In one place where he was the water runs out straight from the slab into the street, along the kerb stone.

Has tried the amorphous phosphorus. Could not use it. It is far too explosive. When it first came out was mixing it and chlorate of potash, both in powder, in very small quantities, and when the two

The Lucifer Match Manufacture.

Birmingham.

Mr. J. E. White.

came in contact they blew up and broke his knife in three pieces. Has made matches with it for experiments. It will not take binding well. Good binding is necessary to keep matches in England.

When he was foreman at a match factory he used to employ people for himself, and contract for the work with the proprietor. This is done at many factories.

Thinks that any laws limiting the labour of children would interfere with his business, which fluctuates a good deal. If children worked less time they would earn less, and their mothers would complain. That would not hurt if all businesses were under the same rules. But he would have to employ more hands and enlarge his place. In Birmingham so many girls are employed in other works that he might have a difficulty at times in getting enough hands. Could not get children to come earlier and go earlier. Would prefer it if he could. Used to try to do it when he had the management of a large place in Birmingham as foreman. But found that the children would not come.

Fanny Baldwin, age 12.—Here three or four months. Comes at 8 ; goes at 7, or 7½, or 8. Often stays as late as that. Has her breakfast before she comes. Has her dinner at 1 ; an hour allowed. Has her tea when she can. No time is allowed. Has it while she works. Never has it outside, unless they are waiting for the work to be ready. Makes it hot on the boiler outside. Washes at the pump. There is no towel. Sometimes she brings one.

Has very bad health. There is not a week that goes but what she is ill. Feels it most here in her chest and back. Has been bad ever since she was born.

Does not know how much wages she gets. She works at box making properly.

Went to St. Martin's school till she came here. That is "a pretty tidy school." Goes on Sunday sometimes now. Never did go on a week day. Can spell a little. Cannot write. Never tried any figures. Goes with mother sometimes to a church. They tell her about God there.

Ellen Gepp, age 8.—Fills frames. Comes at 6½ or 7 or 8. Generally at 8. Stays till 8, sometimes to 9. Has her breakfast in the house there. Her father and mother live there. Does not know how long she has for it. Has dinner at 1 or 1½. Comes to work again at 2. Earns 2*s*. 8*d*. or 2*s*. 4*d*. Mother gets her clothes with it. Sometimes gives her ½*d*. or 1½*d*. a week. Used to go to Jerusalem school till she came here. It was a day school. Used to learn spelling of a morning and sew in the afternoon. They used to set her a spelling lesson to write down on a slate. Can write, but "not so very well." Cannot write her name. Can spell quite short words, but not all of them (breaks down). Used to go to St. John's church. Did not hear what the preacher said, "not to know nothing." He told them to be good. The gentleman at school taught them a prayer. Does not know any now.

Emma Ellis, age 16.—Comes at 9. Stays till 5½ or 7. Has her breakfast at home first. Has dinner at 1 ; an hour allowed. Brings it with her and keeps it in the shop, and eats it there. Sometimes goes out of doors to eat it. Washes sometimes. There is a bucket, but no towel. Drys her hands on her apron. Works for herself.

Went to a day school for 12 months before she went to work. Since then has been to a Sunday school. Does not go now. Can read the Bible, but not quite all the words. Can write a very little. Can write her name, not well. Used to do the small rules in summing. Twelve times 12 is 130.

Susan Rudd, age 15.—Has been at a match factory four years. Has "filled" all that time. Comes at ¼ to 8, stays till towards 7 or 7½. Breakfasts first. Has dinner at 1 ; an hour. Never has it outside. Mr. Bermingham tells them when it is 1 o'clock.

Works by the piece. Gets 6*s*. in a full week. Mother gives her so much.

Till she came to work she went to a Catholic school on a week day. Goes on Sunday now. Can read fairly. Cannot write to speak of. Cannot do many sums. Never did them out of a book, but on a slate. Did not put them together. Fifty-five and 55 are 110. Is very seldom ill. Has toothache very bad sometimes. The first time was two years ago. Has not had any teeth out.

Elizabeth Fox, age 10.—Just come. Begins at 9 or 9½ ; works till 8.

Henry Gepp, age 10.—Has been at this and another match factory nearly three years. Does everything here. Cuts paper tubes to make match boxes with the machine. Lines the packing cases with tin. Always works in that room. Comes at 8 or 9 or 9½. Works till 7. Has breakfast before he comes. Has dinner in the house at 1, with his sister Ellen. After that plays out here (in the garden) for half an hour. "Me and the girls walk about." Washes sometimes. Gets a towel in the house. That is mother's. Works by the piece. Earns 3*s*. or 3*s*. 6*d*. Gets 2*d*. for himself.

Went to a day school till he went to work. Does not go now at any time. Left off because he did not know where there was one, except Stephen's. Can read short words easily. Could write letters on a slate or on paper. Went to a chapel sometimes. Does not ever go now.

Catherine Currie, age 17.—Makes boxes. Was at a match factory seven years. Went to a day school a little 10 years ago. Reads (makes many mistakes in one syllable words). Can write a very little. Can do figures. Remembers "some 'rithmetic and that." Three and 4 and 7 are 10—are 15 (a *woman* close by says they are 17).

Sarah Ann Dixon, age 12.—Comes at 7 or 8. Stays till 7 or 5. Works by the piece. Takes 3*s*. home a week. Gets 1*d*. for herself.

Goes to a Sunday school. Went to a day school "when I was a little one." Went for three years. Left off when she was 5 or 6, because father had no work and mother could not send her. Had to pay 3*d*. a week for her schooling. On Sunday at school reads the Testament a little. Never goes to a chapel now. Did go. Mother cannot send her now because she has no boots to go in. Does not remember what she heard about. Never heard about the Gospel. Jesus Christ came to die for us. That is in her catechism book.

DOWLER'S, GREAT CHARLES STREET, BIRMINGHAM.

The manufacture of matches is but one branch of the whole business carried on upon these premises, which includes the founding and manufacture of fancy brass articles, and as this is carried on in the heart of Birmingham the space is very confined.

The match department, a gloomy barn-like building, stands back in the centre of a large block of common street buildings and houses, which face Great Charles Street in front, and a parallel street in rear. Entering from the front I passed to the factory through narrow winding passages and came out by the same. There appears, however, to be a door of some kind from the back street. There is no separation between the different parts of the work further than there is between the ground and gallery seats in an ordinary town church. Those processes in which vapour is thrown off are all on the ground. The others in two galleries above, which run along each side of the building, joined together by a cross gallery at one end and leaving a very narrow space between.

In one gallery the wax taper is made under a slight tent-like covering. In the other the children fill the frames. Directly under part of this latter gallery are the drying rooms, quite dark and unventilated. Unless their low flat ceilings be perfectly air-tight, which may be the case, as I was told

The Lucifer Match Manufacture.

Birmingham.

Mr. J. E. White

that they were fireproof, the vapour which is thrown off so plentifully while the matches are drying must escape upwards straight under the dresses and faces of the girls. The dipping place is at one end against the outside of a drying room and immediately under the gallery, with no appliance whatever for carrying off the vapour, which is very offensive in the part of the gallery just above. I noticed at once at that very spot a little girl with her face bandaged and think her statement deserving of attention (see *Anna Johns* below). Many little girls were working close to her. But scarce as light and air are inside the building they are equally so outside, and there is no place in the open air in which meals could be taken with any comfort. The place at the time of my visit was undergoing repairs or improvements after an accident of some kind, by explosion, I believe, in the foundry department, and was in some confusion.

The water with which the dipping slab is washed down, which in a busy place must often be done, *i.e.*, after each set of dipping, runs as I was told into the open street gutter. I of course could not trace it under all the buildings with my own eyes. Water from the slab must carry away a quantity of the composition with it.

While I was in the gallery a child down stairs dropped a couple of frames filled with dipped matches; the consequence was a large cloud of smoke and vapour rising up through the building from one of the frames which caught fire. With careless children such things are often happening. The effect upon the atmosphere in an ill ventilated place is injurious.

While I was in the wax room women and girls were sitting there at tea, others working.

Mr. George Dowler.—Has been in the match business 8 years. Has tried the amorphous phosphorus, and sent his foreman several times to the patentee to make experiments with it, with a view to using it if possible, but has given it up. If it were less injurious and would answer as well, should of course use it.

Has not known any cases of phosphorus disease. Thinks this is owing very much to his making wax matches a good deal, which have much less phosphorus than the wooden; also to dipping generally only once at the end of the day, so that the matches can be well dried before being boxed the next day.

A limit to the age of children employed, if fixed as low as 8 years, would make no difference to him. Does not like them under 12. A day limited to 12 hours, including 1½ hours for meals would be much like his present hours and would suit very well, but might be inconvenient when there was a press of work. If part of this time must be given to school and so more hands required, they could easily be got. Could get 200 to morrow if wanted, because other trade is slack now. But it would be inconvenient because he cannot get more room, otherwise it would make no difference. Would not mind if it were only children that had to go to school.

If one trade in any place is under any restrictions they should be the same for all trades and all over the country. A cotton factory can thrive only amongst other factories regulated in the same way, as at Manchester. In Birmingham, amongst so many unrestricted trades, it could not get hands at a fair rate of wages.

Anna Johns, age 11.—Has worked in the match factory a month. Fills frames. Her hours are from 7 in the morning to 8 at night, or to 9; generally to 8. Breakfasts before she comes. Dinner at 1; an hour. Has tea here with father at 5; half an hour.

Has had a gathered face. It began last Monday, and broke on Saturday. Was only in the lower jaw on the right side. Did not take it to the doctor. Has had the toothache six months before, but it never gathered though it swelled. Her teeth are decayed on both sides below, and she has had four or five taken out at home. Father pulled some and herself the rest. Is not short of breath.

Takes her wages home. Has none for herself. Does piece work.

Goes to a Sunday school. Went to a week day school for five years till she went to work. Was at cotton reels before she came here. Learned to read and write and sew.

Frederick Croftree.—Has lately come here as dipper. Dipped at Bell and Black's for three or four years before that. It has not hurt him at all. It does catch hold of a good many. "I am not so ignorant "as not to know how it does affect them." Knows Osborne (who has lost a jaw in the London Hospital), He used to be in dreadful pain; went on at work thinking it was only toothache; then it came on him all at once. Witness does not drink beer except at dinner, and thinks not drinking is a great thing for keeping off the disease. Beer is the worst thing you can have.

Is very particular about keeping his hands clean. Mr. Bell was a very particular man about such things. Washes after every dipping and brushes his nails out, and his teeth also; uses turpentine. It stops the smell. Gets it himself. Does not find the smell choke him. Always has a good appetite. This work at Birmingham suits him better than at Stratford, because it is half a degree colder. Besides dipping he does other work. Has charge of the drying rooms, and gives out a frame at a time to the girls who box.

[Note.—Quite a young man but hollow faced and pale.]

Amelia Webb, age 11.—Here a year and a half. Fills. Comes at 8 or 7½; has breakfast first. Dinner at 1; a bell rings. Goes home for an hour. Sometimes comes back earlier and begins work. Has tea at her bench at 5. Sister warms it downstairs any where. Washes her hands sometimes at a tap in the yard.

Works by the piece. Gets ½*d.* a clamp, and does 16 or 18 in a day. Mother buys her some clothes with it.

Goes to a Sunday school sometimes. Never went on a week day. Can read a little.

Caroline Selina Webb, age 13.—Here three years. Fills. Comes in the morning at 7½. Stays till 8 or 9 in the evening. Is staying now till 10. Can do 20 or 24 clamps a day; does 30 when she stays till 10. Mother has all her wages, and buys clothes. Mr. Buckland pays her.

Went to St. George's day school till she came to work, and goes on Sundays now. Can read the Testament, but not very well. Cannot write at all. Cannot tell what 7 times 7 is. 22 and 22 is 44. Has heard of France; thinks it is a building.

Ala Preston, age 12.—Fills. Here three months. Generally comes in the morning at 6 or 6½, and stays till 9 in the evening. Has her breakfast where she works, and her dinner too, though she goes home sometimes. If she has it here she takes a shorter time for it, and begins work again. Has tea at 5; sometimes goes home to it for a quarter of an hour. If she has it here has it while at work. Can wash at the tap, but does not often. There is no towel. There is soap, but that is the young man's that dips.

Does piece work, and takes her wages home. Has 4*d.* or 6*d.* for herself.

Can breathe well sometimes, but not at others. Has not a cough.

[Note.—A pale, stunted girl.]

Mary Ann Taylor, age 9.—Here a week or two. Works from 8 to 8. Has breakfast before. Has dinner at 1, at her work place; never out of doors.

The Lucifer Match Manufacture.

Birmingham.

Mr. J. E. White.

Has tea at her work also. Eats a bit and works a bit. Has a cough; it has just come. It hurts her throat.

Went to a day school once. Goes on Sunday now. Can spell G-o-d. He "helps people make houses." If she is a good girl He will "send me into heaven."

Sarah Ann Bane, age 10.—Here two weeks. Comes at 6 and 7 in the morning, and stays till 10 at night; sometimes only till 8.

Has been to a day and Sunday school, and goes to a Methodist chapel.

Is paid Friday night. Takes her wages home. Likes staying late at night, "because I think I can do "it faster." That is because the girls keep talking so of a day, and they do not at night.

Rose Anna Whitehouse, age 16.—Works in the gallery across the end. "Pats back." Has done so for four years. Has been here eight. Usual hours of work are from 8 to 7. Is working to 10 now. 11 is the latest that she ever stays. Works by the day, but is paid extra for overtime. When very busy has worked overtime for a couple of months together. Likes it now and then. Takes a fixed sum home each week, and has the rest for herself.

Went to a day school once, but left off to come here. Goes on Sunday still. Can read easily and write a little, "not worth mentioning." Does not know how many pence there are in 3*s*. 6*d*. 99 and 17 are 105,

Is not ill ever, except with colds. Has the tooth ache, but not much; has three decayed.

Lucy How, age 17.—Has been here seven years. Comes at 8 in the morning. Leaves work at all times (asks a companion what the usual times are). Works piece work, but likes to leave at 7 best.

Takes her wages home, but has something for herself.

Went to a day school till she was here. Goes on Sundays still regularly. Got some learning: "Yes, I "hope so." Can read the Bible, but not all parts of it.

Mary Ann Williams, age 14.—Works in the wax vesta boxing part. Here seven years. Comes to work at 7 or 8, and stays to 7 or 8 and all times up to 9½ or 10. Has breakfast either before she comes, or else here as she stands at her work. Has her dinner at 1; has an hour, but half an hour is her usual time. Eats it at her work place, or by the door; sometimes at home. Can wash at the tap. Wipes her hands on her apron.

Goes to a Wesleyan Sunday school. Never went in the week. Can read a little (spelling slowly). Cannot write. Never did sums in a book.

Mary Cope, age 16.—Just come here. Was at "nail "cutting." Likes this best. The other was too noisy, and she always had a headache.

Went to a Sunday school three years ago. Never to a week school. Cannot read at all or write.

LODER'S, HILL STREET, BIRMINGHAM.

There is more space and air here than in many places of the same small scale of business. One room, however, used as a storeroom and also as a workroom for two boys, smells very strong and close. "They would have had this window open if I would have let them," (said the master to me on a fine summer's day). The matches are dipped in sulphur and in the composition in a garret at the top, open to the roof, by the master, two boys, who work either here or in the adjoining garret, helping him, one by putting the frames on to the stone ready for dipping, the other carrying them away to dry when dipped. The ladder steps, the only staircase between two floors, were so steep and awkward as to be quite unsafe.

In the match room were traces of a fire in which the master nearly lost his life, having been twice dragged out almost senseless from his efforts to put out the fire. He was "eight weeks ill before he "could get the sulphur out of his stomach." He expressed his wish "to get out into a parish where "it was more healthful."

John Loder.—Thinks it would be a capital thing to force the parents to send their children to school. Would not mind giving up part of their working day. It would furnish many with the means of education, and keep our dungeons less filled. It would be the best thing in the world if a law were made that people, especially drunkards, should send their children to school, and be punished for the neglect of it. Knows a case where a child on his way home on Saturday with his 1*s*. was stopped by his father, who took the money from him and spent it in drink. Is happy to say there is an improvement of late years; there are so many institutions and night schools. However, to tell the truth, there are many who use "the vulgar "tongue" as well as any one. They swear awfully. Thinks, however, that generally they are as well educated here as anywhere.

Makes his own boys speak the truth. If they tell a lie he "gives them rope's end."

Makes them go to school on Sunday, and asks them on Monday morning who preached. Thinks all can read, and some "write pretty."

Does not wish for children young. Would prefer earlier hours of work.

John Richard Saxty, age 10.—Fills and makes boxes. Here three years. Sometimes helps master dip by "putting on" and "carrying off" the frames. Sometimes the smoke gets into your face and makes you cough. If the stuff gets on fire on the stove it suffocates you, and you cannot breathe. When he "rolls" the bundles out after being sulphured, the dust gets into his eyes and makes him cough. Has the toothache sometimes.

Comes to work at 8; stays till 7. Stays a little longer sometimes to make up the work. Dinner at 1 till 2.10. Goes home. Brings his dinner with him on Saturday, and leaves work at 6.

Goes to St. Luke's school all day Sunday, and to church in the morning. Can read and write and do some sums, but not every one of them. The other boys have the same hours of work.

Walter Benjamin Saxty, age 13.—Here 4 years. Chiefly cuts and boxes matches in the dipping room. The smell is not disagreeable. When the matches catch a-fire the vapour takes their breath away. "We can "hold us breath then." Often has colds and coughs. Had one last week.

Goes to Sunday school; can read, write, and sum—compound addition and long division.

All the boys come and go at the same times.

William Hudson, age 13.—Cuts and boxes, and helps master at dipping; "puts on" and "carries off" the frames. The steam chokes you if you let it get down your mouth. They put alum in. Master has a handkerchief over his mouth; only dips an hour three days in the week.

Has the same hours as the others. Dines in here on Saturday.

There is no washing place. There is a privy, but it belongs to the "nailers" in another shop, and is almost broken down.

Goes to a Sunday school and church; never went in the week. Cannot read. (Spells a little.)

HILLIER'S, LICHFIELD STREET, BIRMINGHAM.

A small unventilated upstairs room about 14 feet square, not however in a dwelling house, in which the master and two boys do the whole work, including the making the boxes.

The dipping stone, when in use, is placed on a bench on one side, and the matches are dipped, dried, and stored here. The composition is mixed here and heated on the fireplace. One of the boys was very ragged and had a cough.

William Hillier.—Has worked in the match business for 22 years or more. Knows every part of it. The sulphur is the most unhealthy and disagreeable part. All the phosphorus in Birmingham would do him no harm.

The sulphur dipping must be very unhealthy for this reason: the wood must be very hot, and the sulphur very hot; then the smell makes you cough, and you go out and get in a draught and catch cold. Every one that he knows who has worked at it has a hacking cough. Is sure that is the bad part of the work.

Believes that phosphorus is in some way unhealthy for the jaws, but thinks that is owing mainly to the gay life which men who get high wages when young will lead.

A man who worked for his brother had abscesses in his jaw. This man led a very racketty life, but never dipped, but put the matches into the boxes. Knew another man who had the jaw disease; he was the master and never actually worked himself because he was "a man of property." Knew a large place in Whitechapel which was very bad.

There ought to be a law not to let dippers work so long as they do. They lead next to a dog's life. A change every other day would be a capital plan. It is the silent matches that are the worst; would sooner work for a week at noisy matches than for an hour with the silent. The common blue are silent and nearly all phosphorus.

Joseph Quinzey, age 11.—Makes boxes and fills frames. Hours from 8 to 7: sometimes comes earlier and leaves earlier. Brings breakfast and dinner with him and eats them in the room; mother brings his tea here; takes half or quarter of an hour for his dinner, or any time he pleases so as it is not over an hour, and begins work again. Washes at the tap at night. Went to a week school for a year, paid 1*d.* a week; when he was bigger paid 2*d.* Could read a bit, but not write or sum.

Alfred Tolly, age 9.—Does the same work as last witness. Sometimes carries bundles to dry after being dipped. Brings his dinner with him; usually takes half an hour for it about 1.

Has been to a Sunday school and church sometimes. Can read and count figures and do small sums, but not write.

MR. GEORGE GORE, Lecturer on Chemistry, Birmingham.

Is a scientific chemist, and the writer of a short history of the use of phosphorus as applied in the manufacture of matches, published in successive numbers of the Chemical News in July and August 1861, to which he refers as embodying the chief facts with which he is acquainted in connexion with that manufacture.

Has understood the presence of phosphorus to be necessary for the production of the phosphorus disease or necrosis of the jaw, but in what way it acts he is unable to determine, and believes to be almost entirely unknown.

Has had frequent opportunities of observing the manufacture of phosphorus itself in its simple state in a very large manufactory, and so far as he was able to ascertain from the strictest inquiries from all most immediately engaged in it, none of the effects which are commonly attributed to phosphorus in the match manufacture had ever been found during upwards of a dozen years, though men were constantly engaged in close contact with phosphorus actually handling it in its simple state in large quantities in a building of a temperature varying from 80° to 100° and upwards, and when consequently the greatest amount of vapour would be evolved, and there was an extremely strong smell of phosphorus, as strong as that of gas in gas works, always present.

Thinks therefore that the bad effects in question must arise from the combination of phosphorus with some one or more of the other substances ordinarily employed in the match composition. The facts observed seem to point to the influence of a volatile substance as the chief agent, though there are others which seem to show also that the introduction of the composition into the system in a solid form, as by want of cleanliness of the hands, in eating, &c. is also injurious.

MR. HENRY COOKE, CASTLE TERRACE, NOTTINGHAM.

Was formerly a match manufacturer here. Used to mix the composition himself, wishing to keep the secret. Superintended the business and dipped sometimes; never more than for a couple of hours twice a-day. Did not go into the air enough or would not be as he is now.

After two or three years (*i.e.*, 14 or 15 years ago) a toothache came on. The pain was intense; dreadful. At times it took away his senses. (He seemed unwilling even to speak of this pain.) Did not know what it was to sleep. Sleep he could not, even with laudanum. It went on for two or three years, and he then lost both jaws, upper and lower, about the same time. The doctors wanted to take them out, but he would not consent. In course of time they came away, and he got better, and is now quite well. The doctors said he must have a constitution like a horse or he must have died. They expected him to die. Remembers thinking that if he lived over his birthday he should recover.

Remembers three men in his employment who lost their jaws. There was no doubt it was in consequence of their work. One died of a decline two or three years afterwards. They go off into that.

If he ever carried on the business again, he should have all the injurious parts of the work separated from the others, and the dipping as much as possible in the open air.

BEDELLS', JOSEPH STREET, BRIDGE STREET, LEICESTER.

The manufactory was formerly in the middle of the town, but about three and a half years since was removed in consequence of the objections of the townspeople, and the present building, which is quite out of the town, before being opened for use was required to be approved by the inspector of the local Board of Health, and has been since visited by the inspector in consequence of complaints of a smell, supposed to come from burning the refuse of the matches, a frequent cause of complaint

The Lucifer Match Manufacture.

Leicester.

Mr. J. E. White.

elsewhere, but which was found, however, to arise from the burning of animal matter at a "trimmer's" stove.

The result of these measures is to be seen in many ways, in particular in the arrangements for mixing and heating the composition and dipping the matches, which seem better than any to be found elsewhere, with the exception only of not being in a separate building. But the plan adopted is probably sufficient to prevent any bad consequences from this. Both of these processes are carried on immediately under a metal cover or sloping screen, which narrows upwards into a pipe or flue, with a strong draught. The dipping plate is placed here only when required for use, and then at such a distance back that little if any vapour can come out into the shop, and that the dipper cannot have his face over it. This position does not seem to be found inconvenient by the dipper. The water used for washing the dipping plate, &c. is carried away into a culvert.

The building is of one story, and well ventilated above with traps, &c. The drying room, however, which is heated by a stove, is very close, opens into the shop near the dipping place, and has a store over it which does the same. A girl also "laps" up between the dipping place and the corner where the ingredients are prepared for mixing.

The match boxes are also made here, of thick paper only, which is found cheaper than wood.

Mr. Joseph Bedells.—Has carried on the business in Leicester 14 years. Is not acquainted with other match manufactories.

Has tried the red phosphorus, but cannot govern it so well. It cracks and flies so when in the matches and sends sparks about. Has tried to get over this, and thinks it may be done. It would be much safer for the public, and there is no fume in the manufacture. But manufacturers would not like to use it, because it is so much dearer. It made his matches 6*d.* a gross dearer and he found rather to his surprise that they would not sell, and soon gave it up.

Was engaged for a long time in a large factory which was under the factory laws. Any such laws would not interfere with his business in any point but one, viz., requiring the children to attend school. When the factory system of education was first introduced, it caused a good deal of trouble in seeing to the school certificates, &c., but now that it is fairly on foot and people are used to its machinery he believes it works very well.

If his children had to leave work to go to school it would stop the work of the others, the dippers and boxers, unless more children were employed. This would require more space and frames, and involve some outlay, though only once for all. Would have to strike the balance between this and giving up children's labour altogether, *i.e.*, if the work would bear it. Does not see any way that the children can get education, unless it be taken out of their day's work. Sending them to school after work would be like making them work so many hours more. They are too tired then and cannot attend.

Thinks children ought to have till 13 or 14 for their education before going to work. Their physical strength is not enough to bear work properly earlier. That, however, is impossible, owing to the necessity of their earning something.

Thinks that the children even of the rougher kind of parents are sent to Sunday schools here. Most of the churches and chapels have very large numbers of them, 3,000 or 4,000, perhaps. Doubts, however, whether the "clamper boys" go, as they are of an inferior class.

[I examined here seven other witnesses, but elicited only facts already recorded. One girl, *Anna Shorter*, age about 14, said,]

She used to go to St. John's schools till here (10 months ago). Does not go on Sunday or at night. There are night schools. Knows a few letters, but cannot make words. Cannot write at all.

Father learns her to read in the Testament sometimes, and sometimes she goes to church. Does not know anything of "apostles," or "Pilate," or the Jews.

The Jews "eaten off the fruit." Is not sure it was the Jews. Adam was not the first man, nor Eve the first woman. "There was one Eve." Does not know whether it was they who ate the fruit.

Leeds.

RUSSELL AND CO.'S, NEW TOWN, LEEDS.

A factory finished and opened within the last few months in a clear space outside the town, with some excellent arrangements. The chief building or match shop, in which the common wood match only is made, is of one story, light and well ventilated from the roof and sides. The fumes from the sulphur are carried up a flue, and all the sulphur dipping is done at night by the watchman employed to take care of the premises. The object of this is to save time. The matches are dipped in the composition on an iron slab, with an opening window over it. Beside this is a stone slab, on which a man shakes out the matches after being sulphur dipped.

The matches, instead of, as is usually the case, being cut in small handfuls by young women or children, are cut by a man by means of a powerful lancet-shaped knife, of about a foot in breadth, fixed at one end, and of sufficient weight and power to cut a whole large bundle at once, The man who shakes out the sulphur-dipped matches, fetches the matches after being thus cut in an iron shovel, and empties them out before the boxers. The benches at which the boxers stand are fitted with pieces of sheet iron, against which the boxers may pat each handful to make it even before putting it into the boxes. This is often done by patting it against the body, a process which leaves an amount of composition on the dress.

At one end of the room are shelves of sheet iron let into the brick wall, in which all matches which are not boxed are put for the night, as I was told, without being in any way the worse for it. A reason often given for working beyond the proper time is, that it is unsafe, as well as destructive to the work, to leave any work at night unfinished. This plan seems effectual, and there is no risk of overdrying and firing the matches, as there might be by leaving them in the drying room, unless that could be thoroughly cooled, which in some places may be difficult. The matches are "filled" on one side and "boxed" on the other. In the middle are some drying racks, and also on the side just a foot or two from the filler's faces, but the latter, I was told, are not used, because "not handy."

In an adjoining building is the packing room, with three cells opening from it used as store rooms. These are under the care of a man.

189

The Lucifer Match Manufacture.

Mr. J. E. White.

The second floor of this building is a shop, where girls make match boxes. Being under a bare slate roof with glass lights in it facing south, which do not open, and with no more ventilation than is given by leaving out a single brick in the wall here and there, it must be very hot in summer. Also there are chinks through the flat stone slab roofs of the store cells, supposed to be fireproof, over which the girls stand. Means of washing are provided. There is a privy, but only one for both sexes.

It being Whitsun week I only found one boy on the premises. On examining him I found him very ignorant; age 13.

William Kirby.—Is manager here. The children are chiefly girls employed in making the boxes. The frames are filled by women; children are not quick enough, and do not answer so well for this. It is better to pay the higher wages and get more work done.

Some of the people are Irish; these have no education, but the others, he thinks, have been to school and go on Sunday, but not to any night school. If the children had to go part of the day to school it would make no difficulty as more could easily be found; a dozen often come in a day to ask for work. A good deal is done for education here, but the state of the lower part of the population is very bad, as bad as anywhere.

Nottingham and Bristol.

In addition to the above places, I also visited and took evidence at a factory near Nottingham, and three at Bristol, all small and poorly conducted places, and at all I found great ignorance amongst the children employed; but the general facts were in no respect different from those already recorded in reference to small places of work.

Glasgow.

JOHN JEX LONG'S, DUKE STREET, GLASGOW.

A very large place, which, though called in a street, is really amongst fields, quite separated from the town, and at some distance from it. It is, so far as I am aware, the only place in the Kingdom at which the whole process of match-making, with all its auxiliary branches, from first sawing large timbers into planks to completing the boxes themselves for use is carried on entirely on the premises. The business also includes not only, as is often the case, the manufacture of blacking, but also some chemical works, as well as a certain amount of trade in timber.

The absence of any other manufactory in Scotland, with the exception of one of moderate size as far away as Aberdeen, and a small place barely started at Edinburgh, render this self-completeness necessary; and this in turn, owing to the greater complication and interdependence of the different branches of work carried on, may perhaps make the case, as suggested by the proprietor, a rather exceptional one and liable to greater interruption in case of any legislative restrictions on the labour.

The shops for cutting and preparing the wood for matches and boxes are some of them dark and low, but are entirely distinct from the match shops. One large room, with proper ventilation, is set apart entirely for young children, boys and girls, filling frames. The sulphur room is open to the roof and lofty, with ventilation at the top; a man and three boys work in this.

The composition is mixed and heated under a penthouse, open to the air on three sides. This is under the charge of the dipper only.

The dipping is done in a separate room, lofty, and with a loose tile roof and bricks taken out to admit air. This opens into the drying room. One boy attends to the latter, and three work for the dipper in the former.

Most of the matches, nine tenths I was told, are made on an improved plan, which does away to a great extent with the use of phosphorus, which is only put on to the tips at a second dipping. The composition in which they are first dipped contains no phosphorus, and will not light on being put into the fire, or, if on the matches, by rubbing on sand paper, or another match, or any common substance, as I saw proved by experiment. The firing so usual from the side friction caused by cutting them is thus saved, and there is a far less surface of phosphorus to throw off the vapour, and I could see none rising from them, as it usually does from other matches, when they were being boxed. These matches may indeed be lighted, as I saw some, by rubbing them on iron, without any phosphorus; but the phosphorus tip is added because the public prefer it. A small proportion of matches are made with the usual phosphorus composition. The matches are boxed in a separate and ventilated room, the better sort on one side, the common on the other.

The matches are stored in a separate large upstairs room, which I was told used to smell very strongly, but now certainly, in consequence, no doubt, of currents of air which have been introduced through it, is not in any way unpleasant.

A large pipe of 60 or 70 feet in length has been also placed for the purpose of carrying a current of air through the drying room, but I was told it was not clear whether it did much good. From the other improvements which have been made in the buildings, and the kind of match used, the drying room which was before close and strong is now cool and fresh.

The evidence will suggest many points in which there is still room for improvement in matters bearing upon the welfare of the young people employed, notwithstanding the ability and energy shown in the management of the business as well as the care and thought which has been bestowed upon the improvement of the manufactory and the welfare of the people.

Mr. John Jex Long.—I have carried on the match manufacture, with other branches of business, here for 10 years. When I first came the buildings were very ill arranged, and, as I thought, unwholesome, especially for the match manufacture. I therefore rebuilt the whole of what is now used for the match work, with the exception of the wood and machine departments, and made special provision for ventilation, which is all important in this work.

I have also made great improvements in the manufacture of the match itself, which enable me to use only about a third part of the quantity of phosphorus in proportion to what is generally used by the best makers, and of what I used formerly.

The Lucifer Match Manufacture.

Glasgow.

Mr. J. E. White.

Probably owing to these causes my place has been entirely free throughout from any phosphorus disease. I have never used any other precautions. I was well aware of the existence of that disease, and had read accounts of it. In rebuilding and altering the premises I took care to provide extensive ventilation as a preventive. I have not had experience of other match factories, but I have observed in every instance that hands who have come to me from smaller manufactories in London are very unhealthy. That may, of course, be owing to a different mode of living, or other cause. I had two men come down from London, one having been for a short time at Edinburgh in the interval, who died of consumption shortly after they came here. One, I was told, had been in the habit of sleeping in or just over the room where he worked. I have heard them say frequently that they dried the matches in their room by their fire at night, and would put the composition under their bed.

I have always understood that the disease is much more prevalent abroad than here, and in large towns where there are many small makers, in London especially, which is, I believe, the only place in Britain where there are a number. I attribute this to matches being made in badly ventilated places, and also to the use of a much larger proportion of phosphorus, both abroad and in the smaller places here, and the manufacture abroad is, I believe, on a much larger scale.

The cheap matches are often made with 4 lbs. of phosphorus with 8 lbs. of glue and the colouring matter. When I used more phosphorus I used to be a good deal troubled with the vapour, not only in the dipping and drying, but also in the boxing and store rooms. The use of any nitrates, chlorates, or peroxides makes phosphorus oxidise more easily, and consequently makes a smaller amount sufficient. The common matches depend for their combustion entirely upon the oxygen of the atmosphere, and in burning must liberate a large amount of nitrogen, which may possibly have some bad effect.

I have never tried the amorphous phosphorus. It requires the alteration of all my appliances, and I think my own plan cheaper and better; and as it is I have not found the work here such as to require any alteration of my present system. But I could do without the use of phosphorus at all, either in the match or in substance against which it ignites.

I wish the use of phosphorus could be discontinued altogether, and should do it myself, and find it cheaper and more convenient, as well as more pleasant for the workers; only the public will have a match that will ignite on anything, and consequently, though I have made successfully, I have not yet issued, any matches containing no phosphorus at all, though the greater part of my matches have only a small portion on the tip.

As a general principle, I should have no objection to the law interfering to some extent in protecting the labour of children and young people, provided the limits fixed were reasonable, and allowed a proper margin for exceptional circumstances. I think a child is of no use in any manufacturing employment, however light, before 8 years old; but in some branches I like them to begin by 9, as they become more handy than if they began later. But it would be very serious to me, in my particular position, if I were prevented from working a certain amount of overtime on certain exceptional occasions, or if the children were compelled to give up any considerable portion of their day to school. I am the only match manufacturer in Glasgow, and with perhaps one exception, almost the only one in Scotland. Consequently if I required more hands on any press of business, there is no other source from which I could draw hands knowing anything of the work, by increased pay even, and I should have to give up the orders. The same reasons oblige me to keep together at all times, whether slack or busy, all the hands that I ever require. It would therefore be an evil for me to have to employ a greater number of children to make up for the time lost by their going to school. If I once let any go they would take to other employments, and I could not get them back. But as it is I have often great difficulty in getting hands at all suitable for my work. Again, from the same circumstance of my being about the only manufacturer of the kind in this part of the kingdom, I have to do for myself every branch of the work, from sawing the timber to finishing the boxes. This involves so many kinds of employment, each dependent upon the other, that the throwing out of one would interfere with all. I calculate that in the business, as I am obliged to carry it on, there are 13 distinct branches, including from 30 to 40 subdivisions, or distinct mechanical and manual operations; and it is only by carrying out the division of labour so fully that a person in my position can compete at all.

I think the same difficulty would be felt in all manufactures where there are many minute subdivisions of labour all depending on one another. It is a great advantage to keep the same hand to the same work. It would be difficult to find fresh hands only for a small portion of the day. I could not employ them for the rest. If I employed a larger number of hands at once I should have to enlarge my premises for them, and have them unfilled during a portion of the day.

What I have been saying applies not to the business in general, but to my particular position here.

I think that any restrictions, if at all severe, which would even slightly increase the expense, would have the effect of driving the match manufacture out of Scotland to London or elsewhere, and would also bring in serious foreign competition, labour and material being so much cheaper abroad.

I think that employers might easily find some means of letting the children attend school in the evenings, say for a couple of hours. This would not hurt them where their labour has been light, and would leave their earnings untouched. Taking off a 3*d.* or so would be a serious deduction from the earnings of a class so poor. They are the very lowest here. Some such suggestion as I have made seems to me the only practicable mode of providing regular education for children engaged in such an employment as mine.

Alexander Lees, about 14.—Attends to the drying room.

Has the same hours for work and meals as all the match boys. Has 4*s.* a week always, whether they are working overtime or undertime.

Went to a week school till he came to work. Goes on the Sabbath now. Can read, write, and sum. Does compound addition. Was "at the length of "proportion" when he left school. Goes to kirk (the Established).

Robert Cameron, age 10.—Works in the dipping room. Has been here "three years and a while."

Hours are from 6 to 6. Sometimes till 7 or 8. Has worked up to 6 in the morning. Only did that once, and had an hour's sleep then at 2 o'clock. The fillers, dippers, boxers, and sulphurers all stayed as well as he and the other two "handers." They are called "handers" because they hand to the dipper.

Has breakfast at 9, three-quarters of an hour. Dinner at 2, three quarters of an hour. Goes home to them. A bell rings for them to go and come back. Tea at home afterwards. Washes at a trough in the yard.

Works by the day. "They don't give you more" for working overtime, but "they don't take it off" when you are idle (*i.e.*, slack of work).

Goes to Sabbath school. (Does not know large print, capital letters.) Has never been to kirk or chapel. Saying prayers means "Our Father." Says that every night. Some Sabbath evenings hears his brother read the Bible. Does not know of Paradise or Adam and Eve. Adam was a man. There were many before him.

William Allan, age 10.—Works in the dipping room. Has for half a year. Is a "hander." Is always well. Has the same hours for work and meals as the other match boys. Washes sometimes at the well. Dries his hands with brown paper.

Was at school till here. Goes to Sabbath school

The Lucifer Match Manufacture.

Glasgow.

Mr. J. E. White.

now. Can read. (Reads short words.) Cannot write. Has never been to a kirk. Heard a man preach in "the glen" (a large grass space near). Does not remember anything of Abraham or Isaac.

Thomas M'Donald, age 10.—Is a "hander" like last witness, and has the same times, &c. Has been three years in the factory. Has a cough. Was out late and caught cold, he thinks. Coughs here when the matches fire. "If they run at burning and the reek "goes off we have to run out and get our breath." Has not toothache ever. Was at a day school till he went to work, and goes to Sabbath school now.

"Canna read;" nor write, nor do figures. They tell them stories at school about Adam and Eve and Joseph. God lives in heaven and "gives us meat."

William King, age 10.—Is "half past 10" and has been here two years. Picks waste and rolls bundles in the sulphur room. The dust gets up in his face. When he first came it made him "snuff."

When he is rolling, it makes his eyes smart and "my ee begin to water." Is quite well. (Is small and pale.)

Has weekly wages, 4*s*. Gets a farthing himself. Was never at a day school. Goes to a Sabbath school now. Cannot read. (Does not know the letters even.)

John Wilson, age 12.—Here three years. Works in the sulphur room at "staving and dusting off" a'most all the time. Holds bundles of splints on to the stove, by those (pointing to a stove on which two open pots of sulphur were being melted) to scorch the ends. It makes him very hot and sweat in summer. Has a bad cold. "Had it na long since. The reek "makes my ee smart." When he first came here, after he got home at night you might smell the sulphur, and "your een got nippy." Does not find that now. Rolls out bundles too. When the matches are dipped in the sulphur, "Tom" (a man) puts the pans out in the middle of the room. Gets 6*s*. a fortnight. They are all paid once a fortnight. Learns the Testament. Can read "somewhat" without spelling. "Jesus died "on the cross for sinners."

Hugh White, age 11.—Here four years. Fills frames. Was in the sulphur room before. Likes filling best because it is easiest, and he can make more. The sulphur dust used to get up into his face, but did not make him cough. Hours are from 6 to 6. Sometimes till 6½ or 7½. Once stayed till 9; once till 10. Breakfast at 9; three-quarters of an hour. Dinner at 1; three-quarters of an hour. Has 3*s*. a week, piece work.

Has never been to a day school. Goes "a Sunday when the weather is bonny." Cannot read or write (laughs at the thought). Never did figures. Heard some one preach in the glen sometimes, but never was in a kirk. The Bible is a book, but he does not know at all what it is about. When there was the flood the people were drowned, not all. There "were seven of "the clean people and two of the others who were not."

Daniel M'Lachlad, age 14.—Fills. Here two years. Hours are from 6 to 6. Stays sometimes till 7 or 7½. Once till 9 or 10. Goes to breakfast and dinner when the others do whether he has finished his frame or not. A bell rings. That swelling (from ears to under the jaws) has been upon him these seven years. Sometimes "they go up" (the glands) and the swelling sinks in.

Works by the piece; gets 3*s*. a week when there is plenty of work.

Went to a week school for a fortnight once, but left because he had to help his brother. Father and mother worked out. Goes to a Sabbath school once a day. "Just answer questions about God and Jesus," when the teachers are "axing you who made you and all." "Was never that far on," (*i.e.*, as a short story of plain one syllable words which I showed to him, but spells words of two or three letters in a spelling book).

Mary Edmond, age 13.—Here five years. Fills. Hours are 6 to 6. "Whiles till 7." "Half seaven's "the maist." Is always strong.

Has not been to a day school, nor often on the Sabbath. "Whiles" she does. "They tell us stories "about good people," and some about bad. Has not heard of Noah; has of Moses. "It is a long time "since I gaed" (to school). Has been to kirk twice in her life. Heard some preach in the glen, Juke Street (Duke Street). There are "a good heap" there, but not very many of those who work here. Most of the people in the factory live near here. Cannot read at all or write. Has not heard of Africa. "Father gaed to 'Merica."

Edward Osborne.—Is fuzee dipper. Was boxer at first. Has been at the work four or five years here. The work suits him. Does not find it disagreeable to smell or hurt his chest or appetite. "There is plenty in "London it takes effect on." Knew a man at Letchford's who had his bottom jaw "right clean out." Worked under a man at Palmer's who had a piece of his jaw out after it had been bad nine years, and his teeth dropped out. That was the "phoss" man, and mixed the composition for vesuvian lights and dipped them.

Can see those (splashes on his shirt, trowsers, &c.) flame at night. Tastes the phosphorus when he eats anything sweet, as sugar, &c. Not at any other time. Often burns his fingers at the dipping. Those boards (on which he dips) burn "gey often."

Jane Dundon, age 17.—"Opens out" paper fuzees. They are brought to her on the dipping board directly they are dipped. Puts them on a rack (close by her in the room) to dry. They are packed in bundles next morning. It very often burns her. Can "see it all "over her petticoat" in the dark. Tastes the phosphorus when eating. Can eat very well. Has weak health and headaches. Feels a little better since she has been here, *i.e.* for nine months.

Her hours are from 6 to 6. Sometimes to 7 or 8. Bell rings for their work and meals. Always eats in this shop. It is too far to go home. A "good deal" stays to their meals; more than not. They eat where they work. She makes her porridge in here on the fire. There are barrels at which she can wash; wipes her hands on her apron.

Reads a little. Cannot write, or figure, or count up. Goes to a Roman Catholic church on Sundays regularly, and to school too. Learns "Question books" about the Lord. When people die, if good, their soul goes to heaven.

Margaret M'Ewen, age 14.—Here three or four years. Does the same work as last witness. Hours from 6 to 6. Very seldom later than till 7 or 8. Works by the piece.

When she is "opening out," if she has a cut in her fingers, "it smarts them," "makes them nip." Finds the smell when she comes in. It does not choke her. Never had the toothache yet.

Went to a week school till she came to work. Goes on the Sabbath now and to a free kirk. Can read. The "day of rest was made when Jesus rose." It used to be the last day after God had created the world.

Aberdeen.

MARSHALL'S, ABERDEEN.

There are several buildings here, but being quite in the town they are cramped and have not enough light and air. One, in which girls alone work at "filling," is low and without ventilation, and, being crowded, is very close.

The "boxers" are in another building by themselves. All are young women, only one, as far as I could find, being under 18.

The Lucifer Match Manufacture.

Aberdeen.

Mr. J. E. White.

The composition is heated by steam out of doors, under a small penthouse, running up into a funnel reaching above the adjoining roof, thus carrying all the vapour clear away; an excellent arrangement.

In the dipping room are employed the dipper and three boys, one of whom, however, looking not more than 15, gave his age as 18. There is only a small window, but the roof is loose and lets in air. The materials for the composition are ground on a stone in one corner. The floor was covered with bundles just dipped, which send out a quantity of vapour. A drying room opens into the dipping room. There is a very strong smell here. "The lassies," said the dipper, "are always burning them." Three girls work in this room for at least a couple of hours every day. This work could be done as easily anywhere else. They "fill sticky matches," *i. e.*, those dropped in dipping and very dauby, and some sticking together by their side.

While I was in here with the three girls, another who was bringing in a frame "fired" it, and filled the room with smoke.

Some men and boys cut the wood for use in a separate shop, too crowded with machines, benches, &c. A circular saw here seems to require fencing; a boy (see *Thomas Moore's* statement) having had his head cut by it. Some of the other machinery seems put under the sole care of too young hands, without instruction.

Mr. John Marshall.—Has carried on the match manufacture here six years. The people in his employment have always been very healthy. Has understood that cholera will never attack a place close to such a manufactory. Has heard that the dipping is unhealthy. His men dip only twice a-day generally. Has taken care to make his own premises airy. Is of opinion that in the case of children it is necessary in some cases that some limits should be fixed by law to their labour. Thinks that they ought not to be employed in manufactories under the age of 10, and that parents should not be allowed to turn their children to profit at such a tender age. Would approve very much of a law preventing it. Thinks there should be a law also preventing the labour of children for more than 12 hours, including an hour and a half for meals. Thinks from 6 to 6 the best hours.

When he started the business he intended to have an evening school for all the children, but had no time to organize or carry out any plan, and has not tried it. Thinks the children could be got to go. But it would leave them too little time for recreation. Thinks the children in Aberdeen are probably better educated than in most other places.

In his opinion the only plan which could be worked effectually would be to have two sets of children. These he could easily get. There are twice as many to be got as he ever wants. It would diminish their earnings very much and increase the trouble of accounts and management.

Alexander Dump, age 12.—Works in the dipping room.

Used to go to a day school. "There's nae nicht "schule now." Can read (spells). Canna write, nor do figures. Has heard father read the Bible. Does not know anything about Adam and Eve. Has heard of an angel, but does not know anything about it, or where they live. They "are gude things."

William Abernethy, age 14.—Two years in the factory; one year in this room. Works at "clodding" (*i.e.*, separating the bundles). Hours are from 6 to 6. Sometimes to 8 or 9; once or twice to 10. Has breakfast at 9 or after. Dinner at 2 or after. It is according to the dipping. There is no fixed time. Goes home. If he stays late, has tea here. Always washes his hands.

There is a bad smell. It chokes him. Can see his clothes shine and smoke. Is always well. Has not toothache or short breath. His appetite is not so good as it was before he came into this shop. He breathes the steam.

Works by the week.

Was at school "in the dark nights," and at a week school till he came here. Goes on Sunday now. Can read. Can write a little, and do multiplication and subtraction.

Emilia Block.—Worked three years in the cutting and boxing room. Got in bad health there. Had a sore throat, and went to the hospital for six weeks. Attends the doctor still, and has for seven months. Used to have very bad toothache when she was at work. Got them pulled out. Put on hot poultices. Had not much toothache before she worked here; but then she was "na so old," and her teeth had not begun to get bad. (She is 25 now). Does not think there "is any deficiency" in her chest. (It is clearly very weak.)

Is not strong enough to work now, so overlooks the girls in this room. Would sooner be at work if she could. Often sees them washing. The "compo" sticks to their hands, and has a bad smell. Noticed it when she first came to work here. Mother said she could not touch the dishes after she (witness) or any one from the place had touched them. It is not healthy work. Does not think that toothache is more common here than in other places. There is "no bad "usage or coarseness" here amongst the girls "like" (there is amongst) "the males."

Gustina Anderson, age 17.—Cuts and boxes. Has been here for 1½ years. The matches often light and burn her. "Sometimes you get sair enough burns." It makes her hands smell. Has never been in "dis-"health" since she was here.

Used to go to school. Can read and write. Never did sums.

Margery Nicholl, age 12.—Comes into the drying room with two other girls to "fill the sticky matches." They have dropped from the frames when being dipped, and are put into a box and brought in here (the drying room). Does this "ilka forenoon and "afternoon." It takes fully an hour each time. The three same girls always do it. Can breathe well Finds it a little close. Its all the same for her dinner.

The stuff comes into her fingers sometimes.

Roderick M'Lure, age 11.—Wears a sling because of his fingers. Worked at the punching machine (worked by steam). Just the second day got his fingers under it. Has got the "pint" of two of them off, bone and all, just down at the first joint of each. "I did "faint off altogether." Saw his fingers off, then fainted off two or three minutes afterwards. It hurts him when they are salving it. It was a month ago. Another boy (next witness) got his head sawed in the crown in two bits.

Thomas Moore, age 12.—"Stamps" shavings for boxes in a gallery. Used to work down stairs. Was getting up the sawdust under the round saw (a circular steam saw) when a girl set it on. It cut his head. The doctor dressed it. Has been here six months.

Can read; and write a little. They do the catechism. Has not got to that yet. Does questions.

James Gemlo, age 13.—Is in charge of the "flecking" machine, and has been for three or four months. "That's all I'm for." Takes care of it entirely himself. If anything is wrong, calls to that lad (next witness). It is not hard work. Has not got his fingers in.

Hours the same as the match boys. Sometimes stays till 8. "We takes a piece wi' us" then. Is told before hand when they have to stay late. Goes home to his meals.

Was at a day school a long time ago. There is no night school now. Can read middling (blunders when set on) and write. Thinks he is a better writer than reader.

John Cromar, age 16.—Has charge of the other machine. Cuts the "flecks" (flakes), *i.e.*, thin slices of wood from a block. These are cut into splints. Has been a year at this, and four months at the other machine before. His finger was not hurt by the machine but at "stamping." It is quite straight and he cannot bend it.

Can read the Bible far on and write. Can sum "no "very good." "First division" and multiplication. Never practised much.

William Marshall, age 16.—Has charge of the shaving machine. It is easy to manage. Has difficulty at times. A man had the machine before. Was not taught how to manage it. Just knew a little about it.

Mary Cruikshank, age 13.—Two years here. Fills. Hours are from 6 to 6. Breakfast at 9. Dinner at 2; three quarters of an hour each. Whiles has them here, whiles goes home. Tea after work. Bells ring for work and meals.

Her face is swelled from a "sore tooth" in the left lower side. It hurts and is broken. It came after the small-pox. Is strong now. (Has very feeble voice and is a dull girl.) Does piece work. Gets 2*s.* 2*d.* or 1*s.* 6*d.* Takes it home. Goes to evening school from "half eight" to 9, but it is "summer's play" now in the evening and no school. Was at day school till here. Can read "furder on "than that" (a story in one syllable words). Can read long hard words (does so). Can write "small write," and do division and multiplication. Goes to school and kirk on the Sabbath. Reads, says questions, and two verses of a psalm there.

Elizabeth Box, age 10.—Came to day. Fills. (Seems terrified at being amongst so many strangers, and can hardly speak in a whisper.)

Mary Cushner, age 11.—Came to day. Fills. Left school to come. Can read, write, and do figures.

Ann Johnstone, age 13.—Three months here. Fills. Hours from 6 to 6. Whiles has longer hours. Once till quarter past 7. That will be the latest. There is a bell at 6, quarter from 10, 2, and 6. Goes home to her meals. Others go or stay. Piece work wages; 1*s.* 9*d.* or 2*s.* Mother gives her something.

Only at Sabbath school since she has been here. Can read easily and write small hand. Was in division and reduction and compound addition, and did all the lower sums beneath, but not any fractions. Goes from school to kirk.

Eliza Peters, age 12,—Here "a year and a fort- "night." Fills. Last winter when very busy stayed two or three nights running till 10; all the others in her shop stayed. Her brother brought her tea then.

Piece wages 2*s.* or 2*s.* 6*d.* a week.

Was at school till here. Goes to Sabbath school and kirk now regularly. Can read hard words. (Does so). Can write, but "not small write." Does addition, multiplication, and "substraction." Nine times 11 is 100. She counted up the nines and the elevens so:—"twice 11 is 22, 4 times 11 is 44, and so on, and added another on." Was taught that way at school.

JOHNSON'S, ARDEE ROW, DUBLIN.

Everything here is at present on a small scale and in a rude form, just as it was left by its late owner. The buildings are mere sheds, one open on one side, another with a plank front, one or two boards having either fallen out or been taken away to let in air, which affords the only ventilation. The splints for the matches and shavings for the boxes are cut by a clumsy hand machine, the wood having been first softened by boiling in a copper boiler. In the closed shed the matches are filled into frames, dipped, dried, cut, and put into boxes. The composition is also mixed and heated here at a brazier. Close by is a room in which matches are stored and a man sleeps who takes care of the premises at night. Between this and the open shed are two privies, which send out a strong smell. The premises apparently were not yet put into order. The proprietor seems a man likely to carry on the business with a proper regard to the comfort of his people, and has several of his own children at work in the place, who seem well brought up.

Mr. Samuel Johnston.—Undertook the business a little more than a year ago. Has not seen much of it elsewhere. Believes that the bad effects of it have been exaggerated. Does the mixing and dipping himself, and does not find it hurt his health in any way. In damp weather finds it disagreeable. Washes his hands after dipping. Takes no other care. His doctor told him it would be as well to take a walk sometimes after dipping.

Makes the common wood match with common phosphorus. Uses one part in eight of phosphorus, but varies it slightly according to the weather. Generally has the matches boxed as soon as they can be, to avoid firing by the friction in cutting. If he dips 30 or 40 frames at a time, the girls take the first of the set to box before he has finished all. Can dip two frames a minute on the average. Any one can tell when the matches are dry by the look, if not, by the touch. If the hand is free, *i.e.*, if nothing sticks to it, the matches are dry. Sometimes on a sunny day they will dry outside in five minutes.

Was in business at Belfast before he came here, and was connected for 12 years with a very large linen factory at another place. Thinks that the kind of rules they had there about the children and their work and schooling would make very little difference to his business. Thinks in a large business of any kind the factory rules or some like them are necessary. If the children had to go to school part of the day it would be good for them, and more would have to be employed. That would be good also. Would not have the least difficulty in getting as many as he pleased. There are a great many unemployed here, but when they come they are not very willing to work; are not trained to it; are not so easy to manage here as the northern children; are an idler lot.

In the north they are better educated. Supposes this may be in part from the regularity of the factory work and teaching; but in the north of Ireland generally more pains is taken with education. There are a great many efficient Sabbath schools there and very well managed, and the Sabbath also is well observed. These are very important things, and are greatly neglected here.

The children do not go much to school on Sundays, though there are Sabbath schools. In such a place some education mixed with the children's work is more wanted than in other places.

Patrick Coonan, age 10.—In this factory nearly three years. Used to fill. "Stamps" the shavings for the girls to make into boxes.

Begins work at 6, leaves off at 7 in the evening. Has regular hours now, when he filled he had not.

The Lucifer Match Manufacture.

Dublin.

Mr. J. E. White.

Sometimes used to go away early in the afternoon, sometimes stay as late as 8, according to the work.

Breakfasts at 9, dines at 2. At each of these times the brewery bell rings across the road. Is allowed "from bell to bell," that is till a quarter to 10 and a quarter to 3. Tea after work. Goes home for all meals.

Works by the week, and therefore has fixed times allowed for his meals. There are two other boys who do the same and have the same hours. Makes 2*s.* 6*d.* a week. Mother gives him something from it according as she can allow it.

Went to a National school, a Catholic school, for a year. Left 2½ years ago. Has never been to a Sunday school. Always goes to a Catholic chapel on Sunday. Goes of himself, "to his own inclination." When he lived the other side of the water (the river) he went to "teaching catechism" in the chapel and got premiums. Now he only goes to mass. Can read "very fair" (does so). Can write, but not much. "It can "pass." Learned "short division." There are 4 elevens in 44. They used to teach about religion as far as was in the books. "About the resurrection of "our Saviour and the sacraments."

John Moran, age 12.—In the factory nearly three years. Fills frames. Comes at 6, leaves off at 7 in the evening. Does so regularly. Does not stay later.

Meals at the same times as the last boy, by the bell. Takes a few minutes more or less than the three-quarters of an hour. Tea after work. Goes home to all. Does not often wash here in the week time, could if he liked; on Saturday evening mistress supplies them with a tub of water and towel and soap. The girls and boys all use it. Works by the piece. Earns sometimes 2*s.*

Till here went to school on a week day. Went to a Protestant school for three months; when he came to know it he left it and went to Clark's, a Catholic school, for 1½ years. Does not know where he could go to Sunday school now. There is only Clark's, and "they doos no Sunday school there." Cannot read, but can spell well. (Reads words of one syllable about alternately right and wrong.) Never practised writing. Never did any figures. Was not high enough to be put on the slate. "When this (place) "opened my ma put me into it." When at the first school, was told that the Blessed Virgin could do no more for him than a common sinner. When he went to the other he was taught better, and not to believe in all that. They taught him to believe in the true Bible, the Catholic Bible. They did not read it much; Mr. Clark read a bit out. Does not remember what it was about at all. Remembers no names in it. Never heard about Jesus Christ being named there.

John Wilford, age 8.—Is "9 next Donnybrook." Has only come to day. Has never been to any school. "Can spell a word as he can't" (pointing to the other boy). Goes to a Catholic chapel.

John Hayley, age 6.—Is not 7 yet. Does not know when he'll be 7. Knows the capital letters, but cannot read.

Andrew Don, age 15.—Has worked here three years. Saws wood for matches and turns the machine for cutting them and shavings. Used to fill. Comes at 6½. Goes at 7½ usually. Has breakfast and dinner like the rest. Goes home. Used to find the match work wholesome. Did not mind it at all. None of the others ever minded it. There used not to be much smell.

Works by the day. Earns 1*s.* Has not been much to school. His father is a poor man. Had to pay 3*d.* a week for a night school. In another country had to pay 1*d.* a week for a day school. They were Catholic schools. Thinks he was in the "third book." That means had done the first and second. Was just begining to read a little when he dropped off (reads slowly, spelling). Was thinking of going to school again when he became sick. Will have to pay 3*d.* a week for a night school. Never learned writing. Could make an odd figure. Hears father read the Bible at home on Sunday. Remembers about Jerusalem. (Relates an event.)

Bridget Doffy, age 17.—Here two years. Makes boxes. Comes to work about 10, leaves off about 7. The other girls comes earlier. Goes home to dinner at 2. Stays as long as she likes. Takes tea here or at home at what time she pleases.

Went to a day school till she came here. It was a Catholic school. Never went to a Sunday school. Cannot read or spell. Was not kept to it constantly, and he was a bad schoolmaster. (Reads with great difficulty and some mistakes, "The cat is fed.") Goes to a chapel sometimes. Cannot tell rightly what she hears about. Never paid much attention. It is according as she minds particular things. Minds of the Lord's Prayer. Knows some names when mentioned. Has not heard of David. Has of King David.

Sarah Conolly, age 12.—"Last Allhallowtide wanted 4 months of 13." Does not know when that was. "My ma told me." Here 2½ years. Makes boxes and cases.

Comes at 6, more times at 7; leaves off at 7 and going to 8. Has meals and comes back again by the bells, like the boys. Goes home for them. Has tea after work when she stays till 8. That is not often. Can get a bucket of water. Does once or twice a week.

Is on piece work. Earns 2*s.* or 1*s.* 9*d.* or 2*s.* 3*d.* Mother helps her.

Went on the Coombs to a schoolmaster for five years till here. After that went to a Sunday school. A Catholic school. Learned to read and spell, but can't read well (reads a stanza of a hymn nicely.) Can write, not as well as she can read. Has written on paper twice or three times. Has forgotten all her sums. (Names subtraction and addition.) Could do them. (Adds 12 and 9 together on paper. Writes down 45.) Learns reading and writing and sums in the school near the chapel on Sunday. The world was destroyed by a flood. Noah and all his people were alive then.

Belfast.

MALCOMSON'S, BELFAST.

A long narrow building of three stories, low and flat ceiled, standing in a street, and necessarily confined. The floors communicate by steep ladder steps not suitable for girls' use. The ground floor is a wood cutting shop, where four men and three boys work; on the first floor girls make boxes. In this a quantity of matches are stored, and cause a strong smell. The second floor is the match making shop, and being at the top is more suited to the work than either of the lower floors, but that is all. There is no roof ventilation, and only three very small square windows on one side, and small window holes, kept closed by shutters, on the other. At the farther end is a room perfectly dark, heated by a stove, for drying the wood splints before being dipped. The composition is heated at this stove, but is brought out into the lighter room to be stirred, close by some of the boys. As the man was stirring, his thumbs and fingers were dipped more than once in the composition. In this workshop the matches are dipped, set on racks to dry, and cut and put into boxes. The smell is strong and oppressive.

The "fillers" carry their frames to the dipper as he dips. A "set" caught fire while being dipped and were, I noticed, put out by a very slow and uncertain means, viz., by spitting on them, but a better plan is followed when the matches, as is very often the case, fire in being cut. A boy stands by the boxer with a wet sponge, which at once puts out the flame without any ill effect, beyond the smell caused by the firing, which is very disagreeable.

I noticed white smoke steaming out of some of the boxes after they had been filled and thrown shut up out on the table. I noticed also the composition on the dipping slab catch fire from a mere touch of the dipper's apron. This arose no doubt from the edges of the slab not having been properly cleaned, and some composition having dried on there.

William Macaulay.—Has been dipper here 1½ years. Before that was 9½ years in a large match factory at Glasgow. There were a good many hurt by the work there. One man, who dipped matches in sulphur and also in the composition, was always bad with his work. He died of decline. There was a foreman died there too in the same year. He was bad some ways in his chest, and could not get breath enough.

Was always particular himself to be clean. That is necessary. Never took any other care, or washed his mouth with turpentine. No other died of disease from their work there that he knows of. That factory was too "closed up," and the smell was bad.

A girl who made fuzees there and put them in boxes is lying bad for nine years. Her head and face were bad, and her face eaten away and a hole in her "brue" (brow).

The stuff "took the flesh out of the gums" of another man there, and he got his arm blown off. That was because he did not understand the work. He was stirring the stuff when it was too hot at the bottom as it was being steamed, and it all blew up. It blew part of the roof off and killed a boy. Has a good appetite himself, but was never strong.

[Note.—This man is very pale and thin.]

William Blake, age 16.—At the work a year. Cuts the matches and boxes them. Comes at 6. Stays till 7 in the evening; of an odd time stays till 7½. Has breakfast at 9, dinner at 2. Has ¾ of an hour for each. There is always some one going out and in to see what time it is. All go together then. All go home to meals. Sometimes of his own pleasure stays here to work instead of going away to his meals, because he is on piece work. Eats them at his bench or in the drying room. The other boxer stays sometimes. None of the others in his loft stay. There is a butt of water near the dipper in case of the place taking fire. Could wash there if he liked. The dipper washes in that. Mostly washes his own hands there before he goes out, in case the stuff should take fire and burn their hands. Sometimes his hands do take fire. "It burns us then." Has a blister on his hands now. If he were to rub it now it would take fire, or if it were warm and dry. (He did rub, and it immediately smoked.) The stuff sticks there from patting them into the box. If he washes his hands at night quite clean you can smell it quite plain. At night at home his clothes are "over sparks of it like." Can see them smoke, but they do not go a-fire. They smell strong. Does not change shirt nor clothes "nor nothing" from one week to another. Has one shirt a week.

Has a sore loin. That is an "income." A pain just came into it and stopped in it. It makes him lame. Is not bad any other way. Has toothache at times. Had six months ago. Feels it stifle him when the matches go off. "We all have to cough then." Makes about 5*s.* a week. Does not look for anything of it himself.

Was at a day school. Cannot go now. Goes on a Sunday now. There are 100 or more there. Learns catechism. It is a long time since he was at reading; he cannot do it now. Could if he made up his mind to it (reads a few words, spelling). Can write a few copies. That would be all. Never tried any sum

Goes to a Catholic chapel. The Queen takes care of England and Ireland. Does not know her name. A king or queen wears a crown.

Patrick Morgan, age 9.—Here five weeks. Helps the boxer. Holds a sponge to put on the matches each time they are cut to keep them from catching fire.

Has got all that stuff over his hand (large blotches of composition which I noticed) "wi' stirring compo." Does that when the man is going to dip. Does it in a bucket "where you saw the flames" on the stone. Does it every day every time the man is going to dip frames. No boy does it but he. "I went a-fire in the "street one day." Sees sparks about his clothes and legs at night. Has washed his hands to-day. "That "wont come off." There are two big tubs of water for washing. Wipes them on a bit of paper.

Comes at 6. Goes at 7 mostly. Sometimes at 8. Has to stay to pick his waste. Breakfast at 9. Thinks it's three hours he has for it. Dinner at 2. Stays about the gate till the dipper comes. That is towards 3. Goes home to both. Tea after work. Works for set wages, 1*s.* a week. The dipper is over them.

Went to a day school for a week. "I took sick of "it." Means he took sick and left it. Goes to Sunday school. Can't read. Could not learn. "Could not "tell you no letters at all." Goes to a chapel every Sunday evening at 6. Does not know what the Bible is. Thinks it's a book. Never saw one. Does not know what makes him think it is a book. "I think "I forgot then." Has heard about Christ. Heard He was killed for us. Heard his mother tell him.

Robert Barnes, age 11.—Knows he is past 11. "My ma told me." Here four months; four months at Macaulay's. Fills frames. Comes at 6; goes at 7. Meals like the others. Works piece work. Sometimes 1*s.* or 1*s.* 1*d.* a week.

Was at a day and Sunday school for six months. Left off because mother was not able to keep him there, and so she sent him to this. Had to pay 2*d.* a week. When he went at first he was in the "A B C," and then got into the 2nd book. Could do nothing but spell, and could not name what the words would spell. Spells "t-h-e." "Is it 'house?'" "H-e" is "'the.'" Could do some figures. Could do 1, and 2, and 3, and 4, but when he comes to 5 he can't do. Can put them down. 2 and 1 (he knows these by sight) are 3.

Margett Hore, age 8.—Here half a year. Makes boxes. Comes at 6. Leaves off at 7. "Nine at "your breakfast and two at your dinner." Goes home. Tea after she has done. Works by the piece. Can make 1*s.* 3*d.* a week sometimes, or a 1*s.* Takes it home.

Goes to a Sabbath school. Reads there (cannot read, spells words of two or three letters). Goes to a church, a Protestant church, every Sunday. Hears plenty there. "About God and things." "That He "sees for us to be good, and loves us, and things like "that." Goes every Sabbath with ma. Cannot write. They tell her about the Bible at school. Has had three or four books "gived" to her because she was regular at school. The book is about God. "My da learns me," her father, Robert Hore. He is a labouring man. He "learns me when I go home "every evening, except some evening he's late, and "does not."

The Lucifer Match Manufacture.

Belfast.

J.E.White.

OSBORNE'S, ANTRIM ROAD, BELFAST.

A narrow shed of one story, in an airy situation. At one end the matches are dipped on an iron slab placed on a wooden bench. The only ventilation is by means of a plank taken out of the side or the shed, near the slab. The windows do not open. On the opposite side is a rack for drying the matches.

Boys fill frames close up to the dipping slab, and next to these two boys "cut and box," and 10 or 12 more boys fill frames. The place has a strong smell. One of the boys who was cutting the matches put them out when they fired by spitting.

Mr. Samuel Osborne.—Has established his match factory a few months. There has been very little of the manufacture in Ireland. It was started on a small scale by a German about three years ago. Makes only the common phosphorus match.

Has a good acquaintance with the factory laws. There are a great number of large linen factories here. Thinks generally that such regulations would not interfere with his business. The diminution of wages would take the children from his work, if they could work longer and earn more elsewhere. If they might not work unless they went to school, that would remove the difficulty. Could get more hands, if necessary.

Thinks all the intelligent part of the Irish would be in favour of education as much as possible; there is no doubt of that. It has been tried for many years in every form. A great deal is done here in the way of Sabbath schools. They are very well attended. The upper portion of the population interest themselves a good deal in the work. Teaches a class himself on Sunday. Has thought on the subject of education for a long time, to find if anything can be done to reach the lowest and almost outcast class. Thinks that nothing can be done effectually unless it be something of the kind provided by the Factory Laws.

There is one great obstacle here; that is the religious one. Any scheme of education ought to take that into account; or rather, it would be better, if possible, to provide some means of education applying to all alike, without reference to party, as might be done by making education compulsory on all children who work, which all the poorest must do. They are the class whom it is now so difficult to reach, and at the same time who need it most. Thinks such a plan is about the best that can be proposed. There might be difficulties, of course, in working it; but thinks it would produce a great amount of good on the whole. In all places, whether large or small, it would be the greatest benefit.

Joseph Currie, age 14.—Has been three years in a match factory. Fills boxes. Hours are from 7 to 7. Breakfast at 9, $\frac{3}{4}$ of an hour; dinner at 2, $\frac{3}{4}$ of an hour; tea after work.

The matches catch fire when damp. The smell goes up his nose then, and makes him cough. His eyes get very sore. Washes his hands regularly; dries them on a sheet of paper. Thinks there is a piece of soap. Never had toothache. Does day work.

Goes to a church Sunday school. Went to a week school for three years, but left off to come to work. Can read, write a little, and do division, but nothing else. Has read of Moses, and a good part of Isaiah, at the week and Sabbath school. They asked him questions about what he read. There are Europe, Asia, Africa, and America.

Edward Mier, age 12.—At another match place seven months. Here a fortnight. Hours are from 7 to 8, but 7 is called the time. Has $\frac{3}{4}$ of an hour for breakfast and dinner, at 9 and 2; tea after work. Goes home to all, but sometimes eats them here in the wood drying room, because there is a stove there. Washes in the barrel outside before every meal.

His hands smoke sometimes, and catch fire. Has had that swelled neck ever since he was born; it does not hurt. Has good teeth. Gets set wages, 2*s.* 6*d.* a week.

Left school two years ago; had been for four years. Goes on Sunday now. They are Roman Catholic schools. Learns the catechism. Can read and write.

Alfred Kelly, age 12.—Four weeks here. Was two at Malcolmson's. They were all put away because they were not good enough fellows. Hours and meals like the other boys. Looks at the clock there to know the proper time. Goes home and stays the regular time. Does piece work. Has got 1*s.* 6*d.* a week.

Went to a Protestant school before he was at work. Goes to a Catholic chapel on Sundays. Learns the catechism. Can read (does). Writes a little. Has tried figures; 5 times 5 is 25. Noah "was what God "saved in the ark." Does not know about the "Gospel," but does about the "New Testament." "I get the loan of a book at home, and reads about "Jesus and the way He was crucified in the garden."

Abney Kelly.—Is dipper. Has worked in large match factories in London, Manchester, and Dublin before. Altogether 16 years in the work. Kelly's in Dublin was a very large place.

Has seen people in close places hurt by the work. It depends on the ventilation. They suffered greatly from their teeth. Has seen a man who lost his jaw by it. Never suffered himself in his breathing, or appetite, or inside. Washes himself, and rinses his mouth with soda.

197

THE PERCUSSION CAP MANUFACTURE.

To Her Majesty's Commissioners.

Gentlemen,

The percussion cap manufacture, which is very limited in extent, there being but six manufactories in the kingdom,* two in or near London, and four at Birmingham, is carried on mainly by female labour, including that of many young girls, and is perhaps the most dangerous of all general manufactures. The danger arises from the unavoidable use of highly explosive materials, in particular of fulminating mercury, one of the most violent substances known. It is, however, confined to the preparation and application of these materials, and ceases when they are distributed into single caps. The danger is plainly of a kind which reaches to all employed under the same roof, or in close neighbourhood, whether actually engaged in a process dangerous in itself or not.

The Percussion Cap Manufacture.

Report by Mr. J. E. White

Five or six serious explosions have happened in Birmingham alone, one about three years since causing the loss of 19 lives. The greater part of those who have suffered on these occasions have been young people.

Loss of life by explosions.

Shortly after the explosion in 1859 some clauses, framed with a view of guarding against such accidents in future, were inserted in an Act of Parliament passed in the following year, and which came into operation on the 31st of August 1861, regulating the use and keeping of gunpowder and other explosive compositions (23 & 24 Vict. c. 139.) For some cause or other the provisions of this Act have not been duly enforced.

On the 21st of June last an explosion took place at the factory of Messrs. Walker, in Graham Street, Birmingham, causing nine deaths, and injuring on the whole upwards of 40 persons, many of them young girls employed on the premises. On the evidence taken at the inquest it appeared that some of the most important provisions of the Act had been entirely disregarded; a fact which I had discovered by my own inquiries when visiting the factory only three days before the accident.

Act of 23 & 24 Vict. c. 139.

Certain provisions which relate only to the safety of persons outside not engaged in the manufacture of the dangerous articles, those, for example, regulating the distance from other premises, are foreign to the present purpose. The Act, however, amongst other things (s. 6.), requires a licence by magistrates in all cases, with an exception of Crown manufactories, for carrying on the manufacture of loaded percussion caps; limits the quantity of fulminating mercury which may be kept in an unlicensed place to 1 oz. dry or 8 oz. mixed with 25 per cent. of water; requires a distance of 20 yards between the mixing place and any other workshop; forbids the keeping any other explosive materials in the same building in which caps are loaded, and limits the quantity of composition to be kept in any building in which caps are loaded to 24 oz. at a time. The Act also (ss. 15. 16.) empowers, and seems by necessary construction to require, manufacturers of the dangerous articles to make rules, which, if necessary, are to be enforced by magistrates, for the conduct of the workpeople, in order to guard against accidents; and these rules are to be affixed to the place to which they relate, and copies given to the workpeople. If these provisions were enforced the risk would be greatly diminished.

The penalties imposed, however, are very slight, viz., a fine not exceeding 10*l.* and forfeiture of the materials unlawfully kept, and no machinery is actually established for seeing that the Act is obeyed, but merely a power given to the Secretary of State from time to time to appoint a person to inspect any place within the Act, no remuneration being provided; a power which it is no person's business to set in motion, and, so far as I have heard, seldom if ever, in fact, exercised.

The Birmingham Borough magistrates have not granted and refuse to grant a licence for any percussion cap manufactory within their limits.

Amended, but still insufficient.

The last explosion led to an application by the same authorities for a more stringent Act, and a short Act has been since passed in the last Session, which directs that the power given by the previous Act for Justices to issue a warrant for the search of any premises on suspicion of an infringement, so far as relates to gunpowder, shall extend also to percussion caps. With the exception of this addition the law remains as it was before. This notice of the requirements of the law will draw attention to some details in the evidence which otherwise might seem not material.

Process of manufacture.

Percussion caps differ in kind and quality, and some of the details of their manufacture differ accordingly. The two great classes, however, are those familiar to most eyes, viz., the military, a larger and more powerful cap, usually smooth on the outside with the edge turned up like the brim of a hat; and the sporting cap, usually ribbed outside and smooth edged. The stages of manufacture are, however, mainly these:—Thin strips of copper sheeting are punched by steam power into small cross-shaped pieces of this form In one factory, which I visited, a small machine, working at a slower rate than usual, was cutting these at the rate of nearly a million and a half in 12 hours. The machine worked itself, and only required to be fed occasionally with the strips of metal. This process, however, I saw going on in only one factory, and the material seems usually bought in the form described.

* This does not include the great Government manufactory at Woolwich.

The Percussion Cap Manufacture.

Report by Mr. J. E. White.

These flat pieces are then punched into the cup-shape either by hand presses, a process called "drawing through," or by steam machinery, which requires the hand only to place the flat pieces one by one on revolving plates. The edges of the sporting caps require also to be ground smooth, an operation also performed either by machinery, which keeps up continual streams of caps, throwing them out singly as completed; or by presses worked by the hand or foot like a lathe. The latter is laborious work for women when long continued.

Before the caps are charged the metal, which is usually greasy, is cleaned by steeping in a chemical solution, washing, or "swilling," and shaken thoroughly in dry sawdust in sieves, or in wooden drums turned by machinery.

The caps are now fitted in rows in oblong blocks, containing usually about 2,000 in a block, with the hollow part upwards, in order to be loaded with the percussion composition, an operation called "priming" or "charging." The block is placed by the primer under sliding metal plates of the same size as the blocks and pierced with holes answering in number and position to the caps as arranged in the block below, but of much smaller diameter; the plates, however, being so set at first that the upper and lower openings do not coincide. A quantity of percussion powder is then poured or spead over the upper plate so as to fill all the upper holes, still closed beneath by a lower plate, and the remainder is very carefully swept away by the softest possible brush, as a hare's foot or a feather. The plates are then slightly shifted on their slides so as to allow the powder to drop into the hollows of the caps beneath. The friction unavoidable in the process is very apt to cause an explosion, and extraordinary caution is required.

The powder is usually fixed in the caps by wetting with varnish, as with shellac and naphtha, or by putting in small round pieces of tinfoil, or by both means; and the caps are also dried in stoves slightly heated. The round pieces of tinfoil are usually punched with the hand by little girls, and are picked up and put into the caps with a waxed needle by others, which is called "dropping in" or "tinfoiling." The tinfoil is pressed home on the powder and polished by a kind of lathe or press, worked by steam or the hand or foot. In this process, also sometimes called "tinfoiling," the caps often explode loudly from the pressure, but the operation is performed on caps singly, and no harm seems to arise from it beyond an occasional blow from a particle of the cap, as in firing a gun. It is plain, however, that the smallest particle thus thrown off may be a source of danger in the near neighbourhood of very explosive materials.

In several stages of the work, as the wetting, tinfoiling, and looking over, as well as the priming, much time and labour is saved by dealing with the caps in large and uniform groups. For these purposes they are arranged cups upwards in "blocks" or frames, much in the shape of a large slate, pierced with cross rows of holes. This is usually done by girls who throw a handful of caps upon the frame and shake it, picking out any that fall irregularly, until all the holes are filled. This is called variously "shaking in," "filling blocks," or simply "filling."

The caps when finished are "looked over" in order to discover and pick out any that are imperfect, and are then put into small boxes and packed, a work requiring many hands.

Priming.

Of these processes the only one dangerous in itself is the priming, which is usually therefore intrusted only to an experienced person, and has in some, though not in all instances, been lately removed to a distance from the other workshops. It is difficult to ascertain the real measure of this danger. It is stated by a person of 25 years' experience as a primer, in all other respects a most guarded witness, that an explosion of 2,000 caps or so (*i.e.* a single lot), would "shake her place and blow the windows out." "The windows were always shaken out." Another witness, whose place of work was down in the yard, the priming place being at the top of the factory, had several times seen explosions of "percussion, "powder in the priming room, and heard the noise and seen the smoke." Another "wishes to "contradict" the priming woman in her statement as to the rarity of explosions at the priming, and states that only a few months before the final accident in Graham Street, there was an explosion which made him look out from his own, an adjoining factory, and ask one of the Messrs. Walker if he was "going to blow them all up," and "that all the girls came rushing out in terror into the "street." Others describe such explosions as much less serious and of a kind not likely to injure any but the primer.

Possibly differences in the size of the priming plates, as well as in the amount of powder poured upon the same plate at different times, a matter which seems to depend sometimes at least upon the nicety of the primer's hand, and the degree, not only of strength, which varies with the particular quality of the powder used, but also of dryness or coolness, as well as the different bias of different witnesses, may account for some of these variations. Still the flashing of 2,000 caps alone, with the far larger proportion of powder necessarily upon the plate, in a space of about four square feet, cannot be a slight matter, putting out of the question the risk from the nearness of the larger packet or bottle from which the powder is taken, possibly still in the primer's hand, and the probable presence on the premises of still larger stores, enough at least for the day's use.

Mixing.

There is, however, a process always supposed to be more dangerous than the priming, viz., mixing the ingredients of the composition. This is usually done by the proprietor or his family, more, perhaps, in order to keep the particular method, which is always considered a secret, from others who might turn it to their own account, than for security. This and some preliminary highly dangerous processes, such as drying the fulminate, have in some, but not, it will be seen, in all cases, been, within the last two or three years, removed to a distance from the principal manufactory.

Drying.

Composition should be used in a wet state.

It will be seen from the evidence that in one very large and busy manufactory in London, a system of using the composition only in a wet state, and in much less than the usual quantities at a time, has been for many years pursued; and, as is said, and seems to be proved by the mere fact of its continued use in such a place, without in any degree impairing the efficiency of the article produced. The method is very simple to the common eye, and cannot require any great skill or experience, as is

shown by the fact of a girl of 17, who has only been in this factory a month, being regularly employed as a mixer, and having once or twice charged the caps, a work here requiring more skill than the mixing. The proprietors of this establishment have, in all other respects, made the most complete provision for the well being of their people, and are, no doubt, thoroughly convinced of the safety of their system, as they allow the mixing and charging to be all done in one square shop, in close contact with other portions of the building, by women and girls, working within a few feet of each other; other women and girls, making in all about 30, working in the same shop, one or two in a way which causes the frequent loud snapping of single caps. No serious accident has happened here; but the same might, for a long while, have been said of manufactories in Birmingham, in which processes, admitted to be most dangerous, had long been carried on. Accidents, however, have happened on the system now referred to, but have been always very slight; which seems more to the point. How far this method, supposing it to be really effectual in securing reasonable safety, may be for any reason beyond the present means or the reach of manufacturers in general, or, if not, how it can be enforced is an important question.

Evidence taken at inquest.

To the evidence taken by myself, I have added extracts from that taken at far greater length at the inquest held after the late accident at the factory. I was not, however, present at the delivery of the verdict. This will give an idea of some of the dangers to which people engaged in such manufactures have been and may be exposed.

Places of work unsuitable.

A few general remarks will sufficiently characterize the buildings in which this manufacture is conducted in Birmingham itself. They stand like houses, of which most of them seem to have originally consisted, in crowded streets, and the necessary space is obtained only by throwing out small workshops and narrow galleries in the yards at the back. The result is that the working rooms are nearly all cramped, low, and ill ventilated, and without other suitable provision for the comfort of those employed.

With regard to two of the six cap manufactories, from what I was told there as to the age and number of the persons engaged in or connected with the processes of preparing and applying the composition, I did not press any further investigation.

As to a third, that since destroyed by the late explosion, it was only after much difficulty that I was allowed to see the workshops themselves, and then the priming place was not shown to me.

I obtained evidence, however, that the priming was done in part of the building, and that four girls were employed as helpers to the primer.

The young persons and children engaged in the above manufactories, as a rule, earn higher wages and are of a better class, better fed, clothed, and cleaner in body, and, notwithstanding cases of extreme ignorance, better taught, and altogether brighter in mind than those engaged in the lucifer match manufactories.

I have the honour to be, Gentlemen,
Your obedient servant,
J. Edward White.

Evidence.

R. WALKER'S, GRAHAM STREET, BIRMINGHAM.

Birmingham

This factory being no longer in existence, and it seeming improbable that the site will ever be allowed to be used again for a like purpose, need not be noticed further than by saying that, as a building it was an extreme instance of what has been described as the general character of the Birmingham percussion cap manufactories, cramped, crowded, and ill arranged. There was on each side a factory, separated by a party wall, and there were other buildings, a cartridge manufactory and three dwelling houses adjoining at the back. So violent was the explosion, that not only was the greater part of the factory utterly destroyed, but the factories on each side were seriously injured, holes being blown through into each of them. In one a man was killed, though separated by an entire shop, *i.e.* by two partitions, from the Walkers' factory. The whole party wall on this side was pulled down on the evening of the explosion, for the safety of those who were seeking the bodies amongst the ruins. The mutilation and disfigurement of body caused by an explosion of this kind cannot be more than referred to. On this occasion one of the Messrs. Walker who was killed could not be recognised by his own brother, another man was equally mutilated. At the time of the explosion there were 54 persons on the premises, of whom several were under the age of 18, and of the latter three were killed.

Ellen Thomas, age 10.—Lines boxes with paper. Comes in the morning at 9. Stays till 7, sometimes till 8 or 9; seldom till 9. Has stayed till 8 for a week together sometimes. Dinner at 1. There is a clock. Is allowed 1¼ hour. Tea at 5. Always stops in the warehouse for these, because she lives a long way off. Her proper wages are *2s. 6d.* a week, but they take off part if she leaves work at 7. Takes it home to mother. Went to a week school for a twelvemonth two years ago, but left before she came here. Went also "when I was a little one;" about 6. Goes on Sundays now to St. Andrew's church school. Reads easily. Cannot write. Minister preaches "about "Jesus Christ and God, and how good they was to "us." Has a slate and tries some sums nearly every night when she goes home. No one helps her. Mother is often out.

Eliza Beckett, age 15.—Works in the priming room for Mrs. Wareham, the primer. Wets the caps with shellac and spirits of wine by a machine after they are primed. Mrs. Wareham puts the powder in with a machine. It never goes off. Works about so far (8 feet) from Mrs. Wareham. It is a small room. Three other girls work in the same place. They are all under 18. Has dinner at home. Is allowed 1¼ hours. Tea in the shop. Has 20 minutes or half an hour. Has *5s.* a week. Gets *2d.* for herself sometimes. Father is foreman in a brass foundry. Goes

The cussion Cap anufacture.

rmingham.

J. E. White.

to an evening school on Monday and Thursday from 8 to 9½. Learns to sew, read, and write. Cannot write or make figures. (Cannot spell even short words. Is shown a picture of a child kneeling.) "He is "praying." Does not know any prayers herself. Did when at school. She has been at work here 6 years. Has not heard of Abraham as she knows of. Has heard of Noah, but never of the flood or of all the people in the world being drowned. Thinks she has heard of Adam and Eve, but does not know what they were.

Elizabeth Allen, age 16. "Draws through." Has not got her finger under the press. Some of the girls do. One of the girls who was "tin-foiling," (the pressing the tin-foil home is meant here,) had the cap go off and hit her eye. It is when the powder is being put into the caps that they go off. It is not often loud. As loud as a gun sometimes, but there have not been many altogether since she has been here, that is 8 months. Comes at 8 if she likes; leaves at 7. When they are busy stays till 9. That is not very often. Is paid 1½*d.* a thousand. A "lot" is 5lb., and will make about 12,000. Some girls will do a lot a day. If it is a good lot, and there is little scrap (waste) it will be more, and a girl will get 2*s.* Goes to school on Sunday, and to an evening school on Monday, but that is shut in the summer. Does not pay for it. Could never afford to go to a day school. They pay 2*d.* a week at the church schools. Father is dead, and mother cannot do much, so has to help her. Says she is in good health.

Jane Whateley, age 14.—Puts tinfoil into the caps with a waxed needle. Comes at 9. She stays till 8 towards the end of the week, sometimes later. Has dinner here at 1. Most go home. Has tea about 4. They have it when they like, and take about 20 minutes. No particular time is allowed. Could wash at a tap in the yard if she liked. Gets 5*s.* a week usually. Has got 6*s.* Has 3*d.* for herself sometimes. A girl told her of this place. Left a week-day school to come here more than 5 years ago. Goes to a Sunday school regularly, and to an evening week school sometimes, but it will not be open till autumn. Can read (reads a stanza well). Can write a little and do subtraction and long division. Five times 15 is 75.

Rosanna Whately, age 13.—Tinfoils also. Has been here four years. The caps are brought in in boxes and she shakes them into blocks. A block holds 3,000. Is paid by the number of pounds weight which she does. Gets about 4*s.* a week. Has not been to a week-day or evening school, but goes on Sunday. Can read a little, but not write. Can do subtraction. Never does anything at home in the evening. Has no father.

Edward Thomas Mann, age 11.—Shears strips of copper ready for the machine, which cuts them into blanks, and oils them with a rag. The rough edge of the metal cuts his fingers and makes them bleed, but does not hurt much. Sometimes if he gets a bit of the metal into his finger it festers. Once his finger swelled up that big (quarter of an inch high). Has only been here 2 months. Comes to work at 9. Stays till 7 or 8. Has dinner up in the shop. Went to a week school, but left to come here. Does not go of an evening, but does on Sunday. Can read (spells one syllable words). Can write, not very well. Can do "some 'straction and piffatic." Is sure it is "piffatic." "Thems sums as have got ever so many "figures in" (arithmetic ?). Goes to church with his mother on Sunday night. Christ was Jesus Christ's son. Jesus Christ did miracles. Christ did not do anything. He was a man first.

EXTRACTS from the EVIDENCE taken at the Inquest held on the bodies of nine persons killed by the Explosion at the Percussion Cap Manufactory of R. WALKER, 69 and 70, Graham Street, Birmingham, on the 21st of June 1862.

James Walker.—Was on the premises, 69 and 70, Graham Street, on the afternoon of Saturday, 21st of June inst., at 20 minutes to 5. There was an explosion then. Nine bodies were found in the ruins. Recognized one of them as his brother Thomas Simcox Walker. Believed another to be his brother Richard, but cannot swear that he recognized him, because he was so mutilated and had no clothing on.

Susanna Holmes identifies the body of her little girl Emily, aged 10 on Friday. She worked in the warehouse at Walker's, in Graham Street, labelling and lining boxes, and going errands. She used not to come home to dinner. Had worked there 10 months.

Eliza Whateley.—Saw the body of her little one last Saturday evening at the Duke of Marlborough. Her name was Rosanna, and she was 13. She worked at tinfoiling at Walker's in Graham Street. Was aware it was a dangerous employment. Several people had told her so. Was not afraid, because they were so careful. Her child knew it was dangerous. Her child earned 3*s.* a week, but often less.

Ann Wood.—Saw her child Anna Maria in the hospital last Saturday night. She was not dead, but she was not far off it. Has since been to see her body. She was 14, and worked in the priming shop at Walker's in Graham Street as a "filler," (*i. e.* at filling caps into blocks or frames). She had worked in that shop for six months. Her wages were 3*s.* a week, but she only got 2*s.* 8½*d.*, because some of the hours were taken off. (Witness could not explain this.) Her child never said it was dangerous work. Witness did not know that it was.

Miss Mary Ann Walker.—Their factory in Graham Street was not licensed. There was a wooden cupboard in the corner of the cellar; it had not had anything in for a long time,—12 months. Before that the fulminate was kept there. They took it away, because after the Whittal Street explosion they did not think it safe to keep it there.

Martha Wareham.—Is primer at Walker's in Graham Street, and has been for 24 or 25 years. On the Saturday afternoon was having her tea with two little girls, Emma Tonks, 11, and Margaret Feeny, 12 or 13, in the "middle place" or "filling shop," which joins the priming room. Heard something go off and felt a great shock. Fell through the floor. Was covered in the ruins for a good bit, and taken out by three men and sent in a cab to the hospital. Was badly bruised. Had the key of the sifting room to fetch up powder from the cellar twice or oftener on the day of the explosion. The last time about four o'clock, when she brought up 14 oz. of powder. It was kept at the cellar head in brown paper parcels of from 12 oz. to 1½ lbs. Put the parcels in a hole in the wall of the priming room in an archway built on purpose for it. Poured the powder out of the parcels on to the priming plate. There was very little left in the cellar; less than there had been for a long while; perhaps 1½ lbs. or 2 lbs. Had worked hard that week, but cannot tell how much powder she had used or how much she could use. Never reckoned. Is paid 14*s.* a week regularly. The powder generally came in on Tuesday; if not, on a Wednesday. Spoke for it when it got down to about 2 lbs. That was on a Monday generally. The last came in on Tuesday night, the 17th. On the Tuesday, when the last powder came, the sieves came too. There was from 16 lbs. to 20 lbs. of powder. The sieves are used for mixing. The powder is mixed with "ox," a white stuff, and powdered glass. No one but herself ever fetched up powder; only brought one packet at a time. Always weighed it. Generally went down three or four times a day. Used more than 4 lbs. a day, sometimes. Did if she worked till 8 at night. In that week had used about 3½ lbs. a day, perhaps.

The mixing used to be done in the top attic fronting the street. There is no copy of rules for the workpeople put up anywhere in the factory. Has had several small explosions, 2,000 caps, or so, going off at a time. That would shake her place, and blow the windows out. Has had four or five years without an explosion. Does not remember more than one in a year. The windows were always shaken out, and her face was burnt three or four times. (The lids of one eye look drawn together). No one else was hurt. Has four girls in her room, three shaking caps into blocks, or "filling" and "picking waste," and one (Eliza Beckett, 15,) wetting. This girl never touched witness's work. Witness had 14*s.* a week after the Whittal Street explosion. When she worked to 8, the girls did. She got 3*d.* an hour for overtime. If a girl's wages were 4*s.* a week, she would get 1*d.* an hour extra. Witness came to the factory at 10 years old. After three years began to prime, and has done so ever since. On the Saturday afternoon there was in the priming room only the 14 oz. which she had just brought up. Has helped at the mixing. It is done on a very large sheet of paper kept on purpose, by tossing the powder from side to side. The ingredients are, she believes, (besides the fulminate) "ox," (chlorate of potash,) pounded glass, sulphur, and black antimony, but they differ according to the kind of powder. Sieved the antimony in the sifting room with wire sieves, and wrapped it up. Eliza Beckett sieved the "ox," the pounded glass, and the brimstone at the same time. All these ingredients were kept in the sifting room. There was a large quantity of brimstone.

Eliza Beckett, age 15.—Has worked as "wetter" in the priming shop at Walker's for five years or better.

Mr. Thomas Hinx.—Is a manufacturing chemist. Supplies Walker's, Graham Street, with fulminating cyanide of mercury. Supplied the last on the Tuesday before the accident. The order was 10 lbs. Took 14 lbs. Expected another order on the Monday following, and should have taken it on the Tuesday. Should take it the same day that he made it, if there were time. Cannot say what was the usual order. Sometimes it was 5lbs. or 10 lbs. according to the work. In some kinds no fulminate is used. Before the Whittal Street explosion has taken in the order of 50 lbs. at one time. Since then has not taken more than 20 lbs. at a time. Delivers all orders in the town himself, mixed with about 5 per cent. of water. It is in packets of 5 lbs. each. When he sends fulminate away for Government orders, is obliged to mix it with 25 per cent. of water, and send it by canal. There is no indication outside what it is. There is no harm when so mixed. When he took the powder to Graham Street, it was always put in the cellar. If it was a large order of 50 lbs., it was in a stone jar or cask, and mixed with 25 per cent. of water, and was set down beside a wooden cupboard there. Believes, as far as he can speak without his books, that 1 lb. of fulminate, when mixed with chlorate of potash, antimony, grit, and brimstone, will make about 4 lbs. of best percussion powder, and much more of common. Two or three pounds of mixed powder would not be enough to cause such an explosion as that in Graham Street; it would blow the windows out, but not the walls. If it were warm it would easily go off. Percussion powder ought not to be kept in any building at all; it ought only to be kept in a light shed, with only a cover over it. His own manufactory is near the Small Heath Schools; they came to him.

The Percussion Cap Manufacture. Birmingham. Mr. J. E. White.

The verdict was that the nine persons died from injuries on the 21st of June 1862, "from an explosion "of percussion powder in the cellar of the Walker's "premises in Graham Street, but that there was no "evidence to show how that powder ignited." The jury, by a memorandum on the record, noted their opinion, "that on the 21st of June 1862 there must "have been on the premises a large quantity of per-"cussion powder greatly in excess of what is lawful "under the 23rd & 24th Vict. cap. 139."

MESSRS. LUDLOW'S, LEGGE STREET, BIRMINGHAM.

These premises form the corner between two streets, and are made up of two house-like buildings, formerly distinct tenements, and both Percussion Cap Manufactories. There are small yards at the back, and low narrow galleries are run out, but the space is necessarily very cramped. Shattered windows inside seem still to show traces of an explosion which happened here about three years ago, causing the loss of three lives, and which led the proprietors to remove the dangerous parts of the work into the country. A separate notice of the country factory, which includes also the loading of cartridges, and where the priming arrangements are all that could be desired, is given. The evidence of three little girls engaged in what no doubt is thought a perfectly simple and harmless employment (sticking on labels) gives a marked instance of the evils arising from the general ignorance of the qualities of common green papers, and consequent carelessness in their use. I procured some paper, of which green labels, such as here referred to, are made. It is very bright, a surface colour, and scratches off easily with the nail, in a fine powder.

Mr. Alfred Ludlow.—Has carried on this business with his partner for seven or eight years. In consequence of the Act, passed a year or two back, they have removed the part of the work in which explosive materials are used into the country. For safety, the dangerous processes are carried on in wooden sheds, and they only keep small quantities of explosive materials in any one building. They find girls and women the most suitable for most parts of the work. Their business would be very little affected by any regulations like those of the factory laws. Never cares to employ children much under 12 or 13, though there may be occasional exceptions. Should prefer from six to six as the hours of work to the present hours of from eight to seven; but in the absence of a general law to that effect would be unable to secure this. If they were to try to enforce such hours, the hands would leave and go to other employments where they could begin work later. Altered the hour of coming to work from nine to eight about a year back, and lost several hands in consequence. Does not know of any manufactories in Birmingham that open before eight. If the hands were to come earlier, more work would be done than at present. From six to six, or hours like that, would be better for all parties. It would certainly give the workpeople more leisure. Does not think that restrictions upon working children or girls under 15 years of age beyond these hours would make any difference; but at certain times it would be inconvenient if they could not employ girls above that age for extra hours. These occasions, however, are rare and of short continuance. If they find that a great amount of extra work is required they put on more hands. These they have no difficulty in obtaining. If the children's hours were shortened, and their wages lessened in proportion, they would not think it worth while to come, and would certainly go off to other employments, if there were any left unregulated by law, at which they could work longer. A large proportion of the work in Birmingham is done in private houses. It would be difficult for any law to reach these. At first sight it strikes him that shortening the childrens' working hours would interfere very much with the rest of the work, though if it were necessary they might perhaps find the means of removing this difficulty; but does not see at present how it could be done. If they could get the children to come at the diminished wages, it would suit their work

The Percussion Cap Manufacture.

Birmingham.

Mr. J. E. White.

as far as he can see to have it done by a greater number of children for a shorter time, or by alternate days or shifts. There are good national schools near, some of them requiring a small weekly payment of 2*d.* or 3*d.* a-week according to age, and some schools free. Most of the children that they employ attend Sunday schools or night schools. Does not know one who does not. As a rule they can read and write a little, and some pretty well. The majority of those who are grown up can read and write well.

Mary Cooper, age 7.—Does not know how long she has been here. It was warm weather when she came. "Drops 'cussion caps," *i.e.*, drops tinfoil in. Comes at 8; stays till 7 or 7½. "Have us breakfast before "us come." Dinner at 1, goes home for it. Tea at about 4½, up at her work; has half an hour. Makes her tea hot by the fire. Washes under the tap sometimes. So do the big people sometimes. The master pays her and everybody else. Gets 1*s.* 6*d.*, or 1*s.* 3*d.* Went to a week-day school till she came here. "A catholic school." Paid 1*d.* a week. Used to go to night school with her sister. Paid 2*d.* at one. Goes to a Sunday school now in the morning, and from there to church ("not catholic") and to school again in the afternoon. Her sister works with her here, and has the same hours for work and meals. Thinks London is a town. Good people go to heaven. (Spells words of 3 or 4 letters).

Esther Bubb, age 6.—Her sister thinks she is under 7, but said, "she would look at the Bible when she "went home and let you know." Has only lately come. "Drops in." All leave work at the same time. Some stay to dinner, not so many. Is not ever poorly. Likes this better than school. Gets 1*s.* 4*d.* a week, or less. "Sometimes get my 18 pence." Mother has it for her clothes. Father works at barrels (gun). He comes home at 8. He makes her brother hear them "say and spell." Sometimes says it every night out of a spelling book. Went to a week-day school till she came here. Paid 3*d.* a week for it. Can read the Testament. Can write. Never "writed" on a paper. Wrote down sums that teacher put down. Could not count them up. Teacher told them how. Father reads the Testament on Sundays to her mother. Sometimes her brother has a large Bible and reads it to her father. It is a "large Bible what has us names "in, when we was born." "Christ is God. Calls "the people to die. Takes the good up into heaven. "Puts (the bad) 'em in the fire."

Mary Ann Adderley, age 8.—Can tell me now how old she is. Has just asked mother. "Bands," *i.e.*, puts green tickets on cartridges. Licks the back of each ticket to stick it on. The stuff tastes in her mouth. When she first came she had her lips bad with it. Makes her sick sometimes; not only feel sick, but really sick. Makes her feel sick every day, chiefly towards dinner time, and about 7 in the evening. Did not feel sick ever till she came here. Has been here two months. Sometimes she tells mother of it, and she gives her some "maganesia." "I never have "no tea, nor no breakfast now." When she did not go to work, could eat two rounds off a big loaf. At dinner can sometimes eat a length off a little loaf, or sometimes a round. A little loaf costs 2¼*d.* now. Dinner at 1. Generally has it in the shop, but goes home sometimes. Tea about 4½. Often washes her hands at the tap; must do so, because "it makes my "thumb and finger so green." It makes her thumb gather. It hurts her (shows a fester half an inch long just by the nail). The other girls lick their bands the same as she does. There are only two besides. Gets 2*s.* or 2*s.* 3*d.* a week sometimes. Went to a school before she came here, "but I didn't learn "anything. It was only an old lady's school." Could not read or write. "All as I could say was my A, "B, C." Does not know what the Bible is about at all. The Testament is about the "Lord and Jesus "Christ." He died for us.

Elizabeth Hunt, age 11.—Does the same work as Mary Ann Adderley. Has her meals at 1 and about 4½. Goes home to dinner. Washes her hands at home before dinner and at the tap here before tea. Has felt sick every day since she has been here. That is a month. Has had her lips sore also. "The gum "of the bands sticked to 'em and pulled the skin off." Feels it stick to them. Never felt sick before she came here. Can eat her meals. Went to a week school once, a long time before she came here. Paid 6*d.* a week "to learn me to knit and all." Learned to read and write. Could read "very well." (Reads a little.) Cannot write. Can "put down all the numbers and count up to 100." 7 and 6 are 13.

Esther Collins, age 16.—Is nearly 17. Has been here six weeks. "Bands." Licks the bands with her tongue like the two little girls, but does more particular work, viz. white bands. Is "hardly "ever on the green ones." When she is, she feels sickly, but she has only done them four or five times. They make her mouth taste funny, like something sour, but it is not very nasty. Cannot taste the white. They do not make her feel sickly. Is not sickly at other times, or unless she is on the green bands. They have nothing to wet the bands with. If they were to dip them in water it would wet them all over and rub the letters off. Has been bad for many months with short breath. Was at service before she was here. Goes to a Sunday school. Cannot spell "Lord" (in large letters) or "gold," Does not know what "gold" is, or what England is, or whether she lives in it. Sea is the water. Does not know what London is, or the Queen. Her name is (in a guessing tone) "Elizabeth."

Rosa Twenty, age 12.—Puts plugs into bullets, and greases them. Gets 2*s.* a week. Goes to school on Sundays. Only went to a week school for one week. Does not know of Abraham, Paul, or Peter. Forgets about Christ. Does not know He died.

Mary Hegan, age 14.—Rolls up paper to make cartridges. Goes home to dinner at 1. Goes to school on Sunday, sometimes. Never went in the week. Does not know any of her letters. (Tried.) Goes to a Catholic chapel every Sunday. Never heard of Noah, or the flood, or all the people being drowned, or a prophet, or Jerusalem.

Ellen Dooley, age 14.—Comes at 8. Stays till 7 or so. Home to dinner at 1, because she lives near. Half an hour for tea. Was at school from two years old till 12. Goes on Sundays now, and every Tuesday and Thursday evening to practise hymns, &c., for the "Anniversary." Used to go to the Band of Hope Temperance meetings. Sang there. Can read. (Reads a stanza nicely.) Can write, but not much. "Father says he is going to have me learned to write." Can do addition. Used to know as far as long division at school. Was at school in America. Came from there with father and all of them last November.

MESSRS. LUDLOW'S, ASTON PARK, BIRMINGHAM.

This place is two or three miles at least from the town, and approached only through fields, by a private road. It is under the care of a manager, an intelligent woman. The workshops are mere sheds built almost entirely of board, but comfortable, scattered over large grass fields, and well lighted and ventilated. The magazines and store rooms also stand a great distance from one another and the workshops.

The priming shop is a small shed, in which only the priming woman works, herself priming the caps and wetting them, when primed, to hold in the powder, both processes being done by means of machines worked with the hand.

The Percussion Cap Manufacture.

Birmingham.

Mr. J. E. White.

This shed likewise contains shelves of sheet iron let into a brick wall, for drying the caps when primed and wetted. No one else is allowed to enter this place. When I was there the woman had just left and the processes were explained to me by the manager. I was struck with the extreme caution which she showed in so doing. When about to touch part of the apparatus she drew back from it, though there was then apparently no powder near, and merely pointed to the different parts with her finger. In another shop two young women were making fog signals, one charging them, the other closing them down with a hand press.

There are two large shops for making cartridges. Each stands at a distance from any other buildings, and is divided by a partition in the middle. In one half of each, women, all above 18, charge the cartridges, either made on the spot by themselves, or brought out ready-made from the Legge Street factory, according to the kind of the cartridge. In the other half, younger women and girls do what is necessary to complete the cartridges for carrying away, as putting in wadding, dipping in grease, tying up, and packing. The arrangements are very satisfactory, and seem to give a fair specimen of the mode in which such manufactories should be conducted, with the exception of the charging shop not being entirely separate, as required by the provisions of the Gunpowder Act already referred to; and also the smell which rises from the hot grease is very sickly even at some little distance from the greasing pan. (See statements of *Esther Price* and *Emma Butler* below.) There is a closet here, but no washing place, which is certainly necessary for the girls who grease and handle the cartridges when greasy. There is however a spring in the next field which may be used.

Kate Larkin, age 9.—Puts cartridges into cases, or fastens tape on to paper for fastening them up. Here a month. Comes at 9. Leaves at 7. Has stayed to 9, but seldom. Lives in Bordesley (one of the farther suburbs of Birmingham). She and some other little girls come here with some elder girls. Dinner at 1; an hour. Sometimes works at dinner time, to make up a piece of work. Dines out of doors generally. Went to a week-day school for five years, till she came here, and goes on Sundays now. Can read the newspaper. Can write small writing on paper, and do reduction, compound addition, and multiplication. Goes to St. Nicholas church every Sunday with father and mother.

Esther Price, age 17.—Dips cartridges in grease. Here eight weeks. Lives in Birmingham. Another girl comes and goes home with her. Stays sometimes till 8½ or 9. Dinner at 1. Allowed an hour, but sometimes has only half an hour, according to the work. The "greasers" and "wrappers" are liable to be wanted to work longer than the others. Can wash at a spring in the next field, if she likes. Gets 6*s.* a week. Came from service to this work. Before that, went to school for some months. Went to a Sunday school when at service, and goes still. Can read. Can write much better than she can read. Can do arithmetic. The first week that she began to grease, the smell made her feel sick. Does not mind it at all now.

Caroline Hedger, age 9.—Comes here by herself. Takes her half an hour. Has not been here in winter yet. Dines in the shop or out of doors, as it happens. Works by the piece. Gets 2*s.* a week. Goes to Sunday school, and with mother to the parish church (Aston). Went to a week-day school for the two years before she was here. Learned to "read and write, " and do sums and tables." (Reads a stanza nicely.)

Emma Butler, age 18.—Greases cartridges. Found the smell make her sickly at first. It does not now.

[An "alarming explosion" is stated in the papers to have happened here lately, *i.e.*, since my visit. Some damp and damaged cartridges were being opened, when from some unknown cause they exploded. Two young women jumped out through the window, and were taken to the hospital severely burned about the face and upper parts. No gas or fires were burning at the time (about 2.0. p.m.), and happily there was then but a small quantity of powder in the hut.]

PURSALL'S, HAMPTON STREET, BIRMINGHAM.

This factory is of the same character as the others of its kind in Birmingham. The priming, I was told, is done out of the town by a woman, a girl of 17 working with her to shake the caps into a frame ready for priming. Here too, owing to the state of trade, only a small number of young hands were at work. The average number of persons under 18 is about six girls, and three or four boys.

Mr. George Kynech.—Is a partner in the firm. Seldom employs children under 13. They are not suitable for the work. Would prefer earlier hours, stopping at 6, but could not get the hands to come. Cannot work beyond the usual hours, because they depend on steam power, rented from the adjoining factory. If they had an engine on the premises, would probably often have occasion to work overtime to execute pressing orders. Can always get more hands than are wanted. On the whole, any regulations like the Factory Laws would hardly make any difference. Does not think education is valued much here as compared with Scotland. There little children can nearly always read and write. Thinks, however, that education is cheaper here than there, though that is not the general opinion.

Emma Wright, age 15.—Cuts tinfoil, and goes errands. Works from 8 to 7; never after 7¼. Has breakfast before she comes. Dinner at 1. An hour allowed. Tea either here or at home. Has day wages. Goes to a Wesleyan Sunday school. Can read the Bible. Reads about Mary Magdalene and other things. Went to a day school since she was five years old till she came here (a year ago). Can write with a pen; small writing. Can do compound addition and "compound substraction." Has done more than that, but does not remember without a book. Cannot tell anything more that she knows, because she cannot go to school very regularly. Mother is ill, and she has two little babies to attend to.

Sarah Ann Warren, age 14.—Cuts tinfoil. Has 6*s.* a week if full of work. Goes to a Sunday school. Used to go to a day school, but left off because mother could not afford to keep her there. Has no father. Goes to a night school regularly twice a week. Learns to write and read. (Can hardly spell.) That child (in a picture) is praying. Knows her own prayers at night. Has not heard of Germany or France.

COX'S, GREAT CHARLES STREET, BIRMINGHAM.

This, like many Birmingham factories, has the appearance of a common house in a street. The only persons under 18 employed here, as I was told, are two girls, whom I saw at work in the ground-floor room or office, one cutting paper labels, the other punching out tinfoil. The caps, I was

The Percussion Cap Manufacture.

Birmingham.

told, are primed out of the town by a man. During the short time that I was on the premises, caps were snapping overhead, no doubt in the operation of polishing the tinfoil put into each cap to keep the powder in its place. The number of young hands employed here is, as I understood, now very much reduced, owing to different circumstances, and amongst others to the American war.

Mr. J. E. White.

Mr. John Cox.—Earlier hours would be no inconvenience. When busy, does not work much beyond usual hours. Hands under 13 are not suitable for this work. Is obliged by Act of Parliament to carry on the priming out of the town. Never employs any but grown-up people at that part of his factory.

Ellen Titmouse, age 14.—"Cuts out" tinfoil to be put into caps. Does about 30,000 in a day. Works from 9 to 7. Has stayed till 8. On Saturdays leaves at 5. Goes home to dinner at 1. Allowed 1½ hours for it. Has tea here at her work at about 5. Goes to a church school on Sundays. Went to an evening school for a bit. Can read without trouble, and write. Reads the Bible at school. Never did much summing. Does not remember the names of any sums. Works for the same hours as the women.

Catherine Yeomans, age 17.—Has the same hours of work. Has not been to school lately. Can read, but not write.

[The next witness is now not in the factory, but at home].

Maria Mason.—When about 16 or 17 (is now 20) went to work at Cox's cap factory in Great Charles Street, a friend telling her that she would get higher wages at that than at other work. She did not feel at all afraid of going to that kind of work. Her hours were from 8⅓ to 7, or, if they were busy, till 8, with 1½ hours for dinner at 1, and lunch and tea when they pleased, generally about 11 and 5, sometimes as early as 3. They thought they could work better after tea. They ate and worked at their meals, unless at home for dinner, in order to earn more, but they might stop if they liked. Her work was "drawing "through;" it was very hard at first, and made her shoulder and arm ache, but did not hurt her health. After she had been at work about six months there was the explosion in Whittal Street (in 1859), and her father and mother took her away directly. The accident stopped the work at her factory that day. About eight or nine other girls besides herself left also, out of the whole number of about 50 women and girls and two men employed there. The girls were more afraid than the women, who had been at the work longer. After about a fortnight she went back again to the work without her mother's knowledge, but as soon as her mother found where she was working she came and took her away again directly, and she has never been to a cap factory since. She was not so much afraid then, because she thought Mr. Cox very careful. He brought down a little parcel of powder every morning and took it at once up to the priming room at the top of the house. The primer was a very careful woman; a little girl helped her, and four girls worked in a room close by. After the Whittal Street explosion Mr. Cox said he would not put his people to any jeopardy, and they might work there safely. She would not go to a cap factory now for any amount of wages. It is against her father's and mother's wish, and something might happen to her. "They value my life, perhaps, more than the money." Besides, since the accident at Walker's she would be quite afraid.

London.

MESSRS. ELEY, BROTHERS, CALTHORPE PLACE, GRAY'S INN ROAD.

These premises, though in London, are as to the new, *i. e.*, the greater part, very large and airy, and nicely kept; they front the road, having a church on one side and a hospital on the other, and contain much open space. Every stage of the cap manufacture is completed on these premises, including the mixing the composition and charging the caps. Cartridges, both cases and bullets, are also made here, but not charged. The percussion powder, however, is mixed and the caps charged on a system different from the usual one, and said to be such as to prevent serious risk. This system is referred to in the preface, and consists in employing the most dangerous material, viz., fulminating mercury, only in a moist state, *i. e.*, mixed with 20 per cent. of water, and in very small quantities, viz., only half an oz. at a time, and moistening the other ingredients also; the mode of charging is also somewhat different, but both are secrets; nor do the details, beyond what are stated by the witnesses, seem important for the present purpose. The greater number of the people work in a very large and lofty building, built within the last few years. The machinery, which is very extensive and various, is on the ground floor, with all the processes requiring its aid. In large galleries a great number of people are employed at hand work of various kinds. In another old building, several stories high, with flat ceiled rooms, cartridges with bullets are also prepared. This appears to have been the old factory before the large new building was built. Three large rooms are set apart here as dining-rooms, with tables and benches sufficient for all the people, who are obliged to eat their meals here at fixed times. There are pegs for bonnets, cloaks, &c. on the walls. There is a large convenient kitchen close by fitted with steam boilers and hot plates; in this meals are cooked, tea boiled, &c. by three cooks paid partly by the firm, but receiving from each of the workpeople who employs them a small sum, 1*d.* or 2*d.* weekly. I saw a long row of rashers, chops, &c. on separate plates lying ready to be cooked. There are also washing places, and rooms in which the women can change their dresses, &c., many of which I saw hanging about. There are, too, a large number of water-closets (13). All the arrangements for the comfort of the workpeople are very satisfactory. A library also is supported partly by the firm, partly by the subscription of the workpeople, and is very popular, especially in winter.

Mr. William Eley.—I am one of the firm. We have carried on exactly the same kind of business, though on a gradually increasing scale, for full 20 years; during the whole of that time we have never had any loss of life or limb, not even of a hand, amongst our people. The only accidents are slight burns from the powder, and pinches of fingers under the presses. For a time we had the caps charged out of town, but then we could not superintend the work so well, and the people were consequently more careless. We find it safer and better to have it conducted here, where we can constantly watch it ourselves. The system which we pursue makes any serious accident impossible. Our store of fulminate is kept in water in a field in the country, only a small quantity being brought in at a time for daily use. When brought in, it is kept mixed with 20 per cent. of water, and is used in this state in separate quantities, never exceeding half an ounce; this is an effectual, and I believe the only means of securing safety, and owing to the extremely explosive nature of the material when dry, fulminate never ought to be kept unless mixed with at least 20 per cent. of water; where the caps are charged with dry powder, the fulminate must either be kept dry or dried for use. In either case there must be great danger, and the worst accidents have, in

The Percussion Cap Manufacture.

London.

Mr. J. E. White

fact, arisen either from stores kept in a cellar beneath the manufactory or from the process of drying. Using the composition wet does not in the least interfere with its efficiency. After the composition is actually in the caps there is no danger. An objection is often made to employing women and girls in such works, but I consider it positively safer and better to do so. They attend much more to what is said to them than men or boys will; besides, boys are much more mischievous, and men carry matches in their pockets for smoking, &c.; it is impossible to prevent this. Again, the superior strength of men and boys is of greater value in many other employments than it is in ours, which requires not so much strength as delicacy of handling and care. The same amount of wages, therefore, will procure hands of much greater age, and therefore experience and steadiness, and so more suited to our work than if male labour were employed. As to the general question of legislative interference with the employment of labour, we should, of course, much prefer to be left free to manage our business our own way. Any inspection, unless in the hands of superior men, gives rise to much needless and vexatious interference, as well as to much jobbery. Any regulations, however, like those of the factory laws would in themselves scarcely touch us at all; our hours are short; we never work overtime; we never knowingly employ children under 14, though they are sometimes brought in younger by their friends. I feel sure that the forewoman would not engage any children who had to attend school for part of the day; but I think that all children under 13 ought to be obliged to attend school. I should wish it myself, if we employed children under that age. If we wanted more work done we should increase the number of hands, not the hours of work, because it is clear that no one can do more than a certain amount of work. A person who works beyond a certain limit does not get through more actual work in the long run. I consider eight or nine hours real work enough; that has been our experience, and we have always acted upon it. We have a library here under the charge of one of the men. Those who like, and they are a large proportion, subscribe 1*d.* or 2*d.* a week, and we add 20*l.* or so when a stock of books is wanted. The girls can read at spare times in their work, and they make great use of the library, in winter in particular. At first there were chiefly instructive or religious books, but these soon failed to attract readers, but now there are more amusing books, such as the Waverley novels, travels, &c., and these are very popular.

Martha Rainer, age 13.—Works in the charging shop. "Trays," *i.e.* fill caps into trays ready for the charger. Comes to work at 8; stays till ¼ past 6; leaves on Saturday at ½ past 4, on Monday at ½ past 5. Never stays any later than these hours. Has breakfast before she comes. Has ¼ of an hour for lunch at 10; an hour for dinner at 1; ½ an hour for tea at 4. There is a clock in the yard, and a bell always rings when it is time to leave off work and to begin again. There are washing places in her shop. Gets as much as she can earn. That depends upon the chargers. If the charger does "three hundred" (*i. e.* 300,000) a day witness has 1*s.*; but that is only when they are kept going with powder all day without stopping except for meals. Never got more than 6*s.* a week; generally gets 4*s.* Mr. Eley pays her. Mother gives her 6*d.* a week to put away for her clothes; mother puts 6*d.* or 1*s.* away for her too. Father is a cattle drover. Is "not a "very good scholar." Has been so. That was when she went to school from eight years old to ten, and could read and write. Then she had to a "mind her sisters" till she came to work (1½ years ago.) Has just begun to go to an evening school four days a week. (Reads badly), can do sums "those with rows;" can do them "three or four times and add "up."

Annie Richards, age 17.—Has been here a month. Mixes the composition. Has charged caps once or twice; goes to Miss Cooper (the superintendent) for the stuff each time she mixes. Gets the wet powder first and carries it in the hollow of her hand. Has a glove. The quantity is different according to the kind of cap, generally about as big as a half-crown, and more like mud than powder. It is given to her out of a jug, about as big as a quart, that stands on the bench beside Miss Cooper. The jug is filled from a pail covered over, and as big as a common bucket, with water in it that stands on the ground close by. There is every care taken of these, and the girls are never allowed to take the powder out themselves. Miss Cooper is always in there. She (Miss Cooper) keeps the other powders in boxes before her, and weighs out them as well as the wet powder for each seperate mixing to each girl. Witness wets the bench before she puts the stuff on it, and mixes the powders one by one in a certain order for a number of minutes, fixed by a minute glass. Has seen it catch alight a little when being mixed, but only once; it made a slight noise. It will burn the fingers a little then. Has not burned her own. They keep water to put it out. They all have their meals at the same time in the dining rooms, lunch, dinner, and tea. Gets a halfpenny a mixing. Has got 1*s.* 10*d.* a day. That is the most. It depends on what is wanted. Can read, write, and sum very well; knows some geography.

Henrietta Horwell, aged 18.—Mixes. (This witness gave just the same account of the mixing and quantities as the last, and described the wet powder as "just like mortar," and "very light.") Sees Miss Cooper fill the jug from the pail. Does not notice how often. Has not had any accident since she was here (1½ years). It is carelessness if you have one. Knows that a little scratch with a stick would make the stuff go off. Sometimes the chargers have it go off, but not often; once in six months, perhaps; if it does there is nothing serious: they have not much powder. It sounds like a lucifer match at first, and then goes off. It burns their fingers sometimes. Gets 1*s.* 10*d.* a day generally, or at times 1*s.* 11*d.*; ½*d.* a mixing. No one is allowed to have meals except in the dining rooms. Each has a box to keep her food and things in, if she likes. Went to a week-day school for four or five years till she came here, and to a Sunday school too. Can read and write and do "addition, and all them sort."

Mary Ann Foreman, age 24.—Charges. Has worked at this factory 11 or 12 years, eight years in this shop, and seven years at charging, and always in the same way. Has never had the powder go off. Has been very fortunate. One or two girls have had it go off, but it is in small quantities, and soon goes out. It only burns their fingers, and they have always come back in a day or two afterwards. It happens once or twice a year, perhaps. It does not shake the place. There are three other chargers generally. The mixer brings the powder to them. Is paid 11*d.* the "hundred" (*i. e.* the hundred thousand). Can do "three hundred and fifty" in a day, but generally does about "three hundred." The other chargers are not so quick, but all get better wages than the mixers. There are generally about 30 people in this shop. The women and girls from all the shops go into the three dining rooms for their meals; none go home. The shops are shut up at meal times. There are three cooks, and the people pay 2*d.* a-week to them for making their tea and cooking all their food.

[Other young women are employed in this shop in like operations.]

Mary Ann Kelly, age 16.—Casts bullets. Has only been here a month. "This work does not agree "with me so well as flower making," Was at that for three years. Has not been ill, but thinks the heat does not agree with her. Had the headache very bad last Sunday. It makes her very tired standing all day, but does not make her ache anywhere. Can eat, but the work makes her very thirsty. She does not lift a very big mould. There are about 20 women cast besides her. They are most of them older. Gets 5*d.* or 8*d.* the thousand, according to the kind of bul-

The Percussion Cap Manufacture.

London.

Mr. J. E. White.

let. Earned 8*s.* last week. Can read long words, and write her own name ; cannot reckon-up much ; does not remember the names of any sums.

Caroline Barrow, age 12.—Had found out that she was 12 and not 10, as she told me at first. "Opens "out," *i. e.* takes oiled paper bags out of a heated oven, and pulls them open. Does not mind the smell. Can eat her dinner. Has been here two weeks. Always washes the grease off before her meals. There is a place at the bottom of the gallery for that. Is paid 1*d.* an hour, she thinks. Had 2*s.* for three days. Went to a week-day school for three years, till she came here ; they did not learn her much, and mother took her away ; that was a "Natural School," in Waterloo Row; then her sister brought her here. Reads short words. Can write a little on a slate. They never taught her sums. Sums are rows of figures on a board. (Being asked if she had heard of France, answers,) "They had maps, but I was not in "the higher class. England is not an island. Has been to church sometimes when mother can spare her ; she cannot in the morning.

[This girl, with another, takes oiled paper bags out of a heated cupboard. There is a sickly smell here. Her arms (as were the other girl's) were coated with flakes of grease, which, however, were washed off before she came down to me, which was directly she had finished dinner.]

MR. FREDERICK JOYCE'S, WALTHAM ABBEY.

This manufactory stands quite outside the town, in the grounds, several acres in extent, which adjoin the private house of the owner. From its situation it enjoys the great advantage of being constantly under the eye and management of himself or some of his family, who, I was told, themselves and alone prepare and mix the fulminating mercury and other explosive materials in detached buildings ; the nearest of these, the mixing shed, being at least 50 or 60 yards from the manufactory.

The materials are stored in a magazine standing alone at a much greater distance. The mixing shed is slightly built of board to diminish the effects of an explosion. The manufactory itself is of one story, and contains several rooms, all airy and comfortable. Notwithstanding, however, the general excellence of the arrangements there are two priming shops, one attached to the main building and opening into it, the other opening through from the first; these contain several priming machines, but only one man was priming, and he uses generally the farthest room. The powder is put in a small cupboard in the wall of the priming room.

The primer has two young women and a little girl working in these rooms to help him. There seems no necessity for this. The presence of several priming machines in the same shop also must much increase the danger, *i.e.*, in case of more than one being in use at once. The caps are dried in drawers or ovens, moderately warmed, in the neighbouring rooms and closets, near where other hands are at work. A little girl was standing by watching whether they were dry, pricking them with a pin to see whether they had become hard. I have not heard of any accident caused by drying the caps, but it can hardly, one would think, be free from risk in case of a little extra heat being applied, and I have noticed in another place that the caps are dried on iron shelves in the priming shed, which no one but the priming woman is allowed to enter. The hands employed coming from the small neighbouring town, or from Cheshunt, are of a quite different kind from those commonly employed in factories. From a book giving an annual statement of the schools, charities, &c., of the parish, it appears that for a population of 4,000 or 5,000, there are several schools besides those in the hamlets —national school for boys, another for girls, an infant school, Sunday schools, and an adult evening school, all church schools; and there are, I was told, about the same amount of dissenting schools. These are in a rich neighbourhood, and all well supported. The answers which I obtained from the girls show that the means of education had not been furnished in vain. I was, however, told by a gentleman who had lived there for some years, that the neighbourhood of the large government manufactories employing such large numbers of men, with a very high rate of wages, amounting in some cases to several pounds a-week, had a very demoralizing effect, making it impossible to find a respectable female servant in the place.

Mr. Frederick Joyce.—Since I gave up my occupation of analytical chemist for my present business, I have always tried to make it a model of what such a business should be, and have conformed to the requirements of the Gunpowder Act (23 & 24 Vict. c. 139), and I have also followed what I considered to be the chief provisions of the Factory Laws. Any laws of that kind would therefore hardly make any difference to me. I do not employ young children at all. They are of no use. Nor do I think working overtime is desirable. The work is not so well done, and indeed this business is not suitable for night time. During the Crimean war there was a great press of military work, and we had to work till 10 at night or so. Those who stayed late came late also, and did not exceed their 58 hours a week. Hands were taken from the common work and put to the military. If there were a pressure in both kinds of work at once, we should use relays. An effectual stop to working overtime would be put by entitling all hands to double pay for overtime, with legal right to recover it before magistrates. This would be much better than limiting the hours. The effect of interference by law in the management of business is to drive honest men and let others go free. Dishonest men always can and will evade strict laws. The late accident at Birmingham shows how easily laws are evaded. No man can carry on this business properly unless he has three or four acres of ground for it.

Mary Ann Lack, age 13.—Works in the priming-shop. Has done so for six months. "Empties out" trays of caps. The priming machine went off not long ago. It was as loud as a gun. She was not in the shop at the time, but passing the door. It did not shake her, but it frightened her, and she ran out into the yard. The man's arms were burned and "it "blowed the machine to pieces," the plate and the wood frame both. Works from 7 to 6. Never later. Has breakfast before she comes and tea after she goes home. Goes home to dinner from 12 to 1. Some stay in to dinner. There is a pot of water in her shop, and soap and a towell in the cupboard. Is paid by the week. Has 4*s.* Mother gives her 6*d.* Saves that to buy her clothes. Goes to school on Sunday, but not to any evening school. Went to a week school till she came here a year ago. Went for six years. Learned needle-work. Can read. Has not had much practice in writing, but has written in a copy-book. Can do "substraction" and addition. Three times 11 is 32. Used to count those things by tables, but forgets how she did them. Geography is about Africa, and such as that, and the "Austreean"

207

Percussion Cap Manufacture.

London.

Mr. J. E. White.

and the Red Sea. Has not heard of the Red Sea in the Bible. Knows the names in the New Testament, as Lazarus and Judah, but does not know what they were. Goes to a Baptist chapel every Sunday.

Sarah Pearce, age 13.—"Shakes in blocks" for a woman who puts varnish into the caps. That is done to keep in the tinfoil, which is put in on the top of the powder. The woman does it with machines. Two of these will do each a row of 25 caps. One will do 1,000 caps at a time. Yesterday she did 1cwt. 8 lbs. of caps with a single row machine. Witness puts the caps into the cupboard to dry, and takes them out when they are dry. Feels with a pin to see if the stuff is hard. Works from 7 to 6 in summer, and from 8 to 7 in winter. Never works longer than that. Has an hour for dinner. At 12 in summer, at 1 in winter. Has it in the factory. About 12 other girls, who come from Cheshunt, do so too. Low (the man) stops the engine at dinner time, and does not let it go on again for an hour. She could not work at dinner time if she liked. Gets about 4*s.* a week. Has not 1*d.* of it to put away, because mother has to get her living with it. Father ran away. Has a sister, aged 16, here. She works at "the well," *i.e.*, the circular bench, with a machine, and gets from 5*s.* to 7*s.* a week. Used to go to school regularly on Sunday when she lived at Waltham. Now she only goes sometimes. Went regularly to a week school since she was four or five years old, till she came to work here, a year ago. Can read "very well," quite long words in the Bible. Can write on the slate very well. Mother is just teaching her to write a letter on paper in the evenings after work. Can "add and take from and do sums "with them two lines." America is a foreign land. Can sew very well. Learned at school.

Eliza Hilton, age 17.—"Makes muskets," *i.e.*, fills blanks into plates. The machine turns the plate round and makes the blanks into musket caps. Works the same hours as the other girls. The hours are never longer. Dines at home. Can wash in the factory if she likes; soap and towels are allowed. The work is greasy sometimes, and makes her hands dirty. Gets 1*s.* for doing a quarter, *i.e.*, 28 lbs. of caps. Gets 9*s.* or 10*s.* a week. So do two other girls who fill plates. Seven other girls at the same work get less, perhaps only half as much. Their machines turn more slowly, and do not want such quick work. Gives 5*s.* to mother, buys her things with the rest. Has been regularly to a Sunday school ever since she was five or six years old, and to a week school also till she came here 3½ years ago. Since then has been once a week to night school when there was one, *i.e.*, for two winters. Paid 1*d.* a week for it out of her own money. Can read. Can do "substraction," and some easy sums. Does not know what 12 times 12 or 7 times 7 is. Four times 5 is 25. Goes to church every Sunday. Hears about God and Him dying for us. Has known the caps go off in the priming room (witness does not work in that part of the building). The last time she heard it, it was like the roof falling in. The roof did not fall in. It only "blowed the ma-"chine to pieces." It generally does that. It burned the man's arm a little. It would hurt him "if he "don't make haste out." Sometimes he scrambles out. It shakes that part of the building, but nothing else.

Harriet Sale, age 20.—Works in one of the priming rooms. Has done so for two years. Wets the caps with a machine after they are primed. Can do 300 frames with 1,000 caps in each frame in a day. The caps only go off sometimes when they are being primed, not once a year. "I am not fearful. That screen (of single boards) "is put up to protect me." Mr. Arbour (the primer) usually fills in the room, but if he fills in witness's, she works there all the same. One girl besides her and a little girl (Mary Ann Lack) work in the priming rooms for the man, but no one else. If the caps went off in the same room it would not break the screen or the wood work of the machine or hurt any one. It would only just startle her. There is too little to hurt.

Rebecca Coventry, age 12.—Shakes caps into blocks for the woman who looks them over and picks out the bad ones. All work the same hours. Has 4*s.* a week. Is paid by master. Every one is. Has 1*d.* a week for herself, but not always. Father died when she was four years old. Mother lives at service, and has three children younger than witness; none of them at work. Goes to a church school on Sundays, and has done so ever since she was little. Has worked in three factories before she came here. A year and a half in a match factory (Bell and Black's), half a year at a powder factory (gunpowder), and a year at an artificial flower factory. At the powder factory used to wrap up the powder, "skillets" in paper. Used to go to a Sunday school, when living at Bromley (Stratford), and to a week-day school till she went to a factory. Never went to an evening school. Says she can read (breaks down in short words). Can write letters and figures on a slate, and do "addition sums," but nothing else. The flood "drownded all the people but Noah and his "ark" "because they was wicked."

[This is a pale sickly-looking girl, the others all looked fresh and strong.]

MANUFACTURE OF SMALL ARM CARTRIDGES AND PERCUSSION CAPS AT THE ROYAL LABORATORY, ARSENAL, WOOLWICH.

The percussion cap manufacture, with the exception of mixing the powder, is carried on here in one large building, in which many persons are employed in other processes. The total number of persons engaged in this manufacture is small, viz., 25 boys under the age of 13; 15 between the ages of 13 and 18, and 11 men; a great part of the work elsewhere done, in part at least, by hand, being here done by steam machinery, which requires but few persons to attend to it.

The filling or priming plate, the only one in use at the present time, is fixed on a strong iron stool or table at one end of a large room in a space railed off. Within this space only the filler, a man, is allowed to come.

The powder for immediate use, the amount of which allowed to be in this building at one time is limited to 6 ounces for each filling frame at work, is kept in a small gutta percha cylinder placed in a slight wooden cupboard or box at a distance of about 6 feet from the filling plate. As soon as the primer has poured a sufficient quantity on the plate and removed what is superfluous, the cylinder is put back into the cupboard and the door of the latter shut. The powder is spread over the plate and swept into the holes with the edge of a pliant card.

The plates are shifted by means of a handle at the end of a shaft about 4 feet long, which enables the primer to stand at a safer distance during this, which is thought the most dangerous part of the process, owing to the friction of the plates in sliding.

A plate is about 13 by 20 inches and contains 1,000 caps. The quantity of powder used is an ounce to the 1,000 caps, and all is of the same quality and very strong, containing 75 per cent. of fulminating mercury.

The present primer, who has been here for 8½ years, has had but one explosion. This bent the plate, but it has been repaired and is still in use; no other harm was done. The explosion happened while he was knocking the plate with his fist to shake the powder down, which he states to be necessary.

The Percussion Cap Manufacture.
Woolwich.
Mr. J. E. White.

In a time of pressure there have been, as I am informed by the manager, four filling plates. But with only one in use a man is employed for a great part of his time in bringing up the powder to the primer in the cap factory from a magazine sunk under a timber shed at a distance, as stated, of about 350 yards; one cylinder or 6 ounces being, as already shown, only sufficient for six fillings. The powder is brought up to this magazine twice in each day from the larger one near the mixing places. These, as pointed out to me at a distance, are slight wooden buildings standing by themselves in the openest part of the ground, at a distance, as stated, of three-quarters of a mile from the factory. The mixing is done by men alone. The amount of inconvenience which is thus gone through for the sake of avoiding an accumulation of powder in or near the factory may be taken as some measure of the conviction of the necessity of some such arrangement.

Light is supplied, when needed, by an open gas jet a few feet from the filling plate, but also a few feet higher. Danger is said not to be apprehended here from this, though in one of the largest private percussion cap manufactories (Joyce's) the gas lamps are placed in recesses in the wall protected by glass, and the manufacturer there stated that these lamps were put up in a time of pressure when late work was necessary, but that it was not a work suited for the night. In the shops in the Laboratory, in which gunpowder is used, as for cartridge filling, the lamps are placed outside the building, the light passing in through windows.

Part of the evidence furnished by Lieut.-Colonel Boxer, the Superintendent, relates to persons employed not in the manufacture now under investigation, but in others of a like kind, and is given as bearing on the question of combining with work an amount of regular school instruction by day-time, and that in the case of persons employed in processes in which some are necessarily dependent on others. This is usually spoken of by manufacturers as a difficulty which cannot be overcome.

Out of a great number of boys and girls whom I examined I found only one boy who could not read. A class of girls were doing sums in a large airy school-room under a mistress. The general appearance of the young of both sexes was decidedly favourable.

LIEUT.-COLONEL BOXER, R.A., SUPERINTENDENT OF THE ROYAL LABORATORY, WOOLWICH.

I superintend the manufacture of ammunition of all kinds, shot, shell, carcasses, light-balls, fuses, rockets, lights, bullets, cartridges, percussion caps, paper wrappers, and cases for these, &c., carried on in this department of the Royal Arsenal. The provisions of the Act (23 & 24 Vict. c. 139.) regulating the use of explosive substances were based on my recommendation.

Men and boys alone are employed in the percussion cap branch, but in much smaller numbers than formerly, when hand presses were used.

The processes attended with danger are the mixing the powder and the filling or loading the caps. The chief precaution consists in limiting the quantity of powder in use at the same time to a very small amount, and this is absolutely necessary.

The mixing is done by men only in small wooden sheds, standing by themselves at a great distance from any other buildings in which any persons are employed. The fulminating mercury is supplied mixed with 20 per cent, of water, and is kept in that state in a magazine in the same part of the ground. I allow only 9 ounces of fulminating mercury, making 12 ounces of percussion powder to be mixed at a time, and only 12 ounces of mixed powder to remain in the mixing shed.

When the powder is mixed it is kept in a magazine near, till brought up for use. I allow only six ounces of powder to be in the factory at one time.

When the caps are filled and removed from the filling place there is no further danger. The powder is pressed down into the caps by machinery, a force of 1,000 lbs. being applied to each separate cap, and to a row at once; but the pressure is applied gradually, and they seldom explode then, and if one does, it does not communicate with others.

The caps are then varnished, dried in a stove, and packed. There is no risk of explosion in the drying, though large numbers of caps lie loose together, nor does even the filling require the separation or removal of the gas light to the outside, as is the case where gunpowder is used, as in the cartridge rooms. The caps are put in small packets into a zinc canister, and this into a barrel of cartridges.

In ordinary times one man with one plate does the whole of the filling, but in a time of pressure there would be more. Two men with two plates can fill 3,000,000 caps in a week.

Though it is sometimes necessary to keep some of workpeople beyond their usual hours, as till 8 or 9 o'clock p.m., I dislike it extremely, and much prefer to make up the work by employing more persons. This can easily be done, owing to the large amount of space, and the size and number of the buildings.

I have found that even men, who were engaged in heavy work, *e.g.*, shell founding, did not produce actually so much result when working beyond 12 hours a day as they did when working 12 hours only.

There are schools in the Arsenal for the young employed in it, the amount of instruction being four hours twice a week for each person. The teaching is confined, as I think desirable, to reading, writing, and simple sums. When a boy can do these he is allowed, if he pleases, to give his whole time to work, but otherwise is made to attend up to the age of 16, and all the girls must attend.

I introduced girls about three years ago for making cartridge cases, finding them more regular in their attendance and more under control than boys. They are taken from about the age of 10 upwards, and discharged as soon as they begin to grow up, seldom being kept after about 15. They are also kept entirely distinct from the men and boys, coming later, leaving earlier, and having their meals and and going to school in rooms near their workplaces, which are in a part of the ground cut off from the other workshops. They work 5 days in the week, and 8½ hours a day, and out of this their 8½ hours' schooling is taken. Their school is independent of the Government, and was established by myself. A weekly deduction of 3*d.* per week is made from their wages for it, and a further deduction of 1*s.* 6*d.* a week for their breakfast and dinner, which are found and cooked for them for this sum. Since they have been employed here their condition and behaviour have greatly improved.

Though the persons engaged in different processes depend in some degree upon one another for a supply to enable them to go on, as those engaged in different stages of the cap making, or the boys who fill the cartridges or the girls who make them, still by careful arrangement the school attendance is managed so as not to throw out the work.

The following memorandum was afterwards supplied by Col. Boxer to show the variety of processes required in making cartridges, percussion caps, cases, &c., and the number of persons engaged in them, with a note as to the way in which the work is combined with school arrangements.

209

The Percussion Cap Manufacture.

Woolwich.

Mr. J. E. White.

MEMORANDUM relative to the MANUFACTURE of SMALL ARM CARTRIDGES and PERCUSSION CAPS in the ROYAL LABORATORY, WOOLWICH.

To manufacture 1,000,000 Small Arm Cartridges per Week.

OPERATIONS.	Persons required.				
	"Girls" between 11 and 13 working 34 hours.	"Girls" between 13 and 16, working 34 hours.	"Youths" between 13 and 18, working 56 hours.	"Men," working 56 hours.	"Women," working 42½ hours.
Cutting paper	—	—	2	3	—
Plugging and gauging shot	17	17	—	—	—
Forming cartridges	133	133	—	—	—
Do. W. P. bags	30	30	—	—	—
Overlooking	—	—	—	—	7
	"Boys" under 13, working 48 hours.		"Youths" between 13 and 16, working 48 hours.	"Youths" between 16 and 18, working 56 hours.	"Men," working 56 hours.
Making pulp insides, drying, plugging, &c.	50	—	20	15	12
Waxing plugs and attending boiler	—	—	—	1	1
Filling cartridges	—	—	—	4	2
Twisting do.	—	—	24	—	—
Testing, if filled	—	—	—	—	2
Lubricating	—	—	2	—	2
Cutting	—	—	18	—	—
Packing in bundles	—	—	60	—	—
Weighing do.	—	—	2	—	—
Packing, stencilling, &c. barrels	—	—	—	12	3
Removing work	—	—	—	2	2
Breaking up defective work	—	—	3	—	1
Proving powder, messengers, &c.	—	—	2	—	2
Bringing powder	—	—	—	—	1
Waiters	—	—	9	—	—
Examining and overlooking	—	—	—	—	10
	230	170	142	34	—
Add from Table below	25				
Total children	255		346		
Add from Table below			15		
Total young persons			361		
Total children and young persons			616		

To manufacture 2,000,000 Percussion Caps per Week.

OPERATIONS.	Persons required.			
	"Boys" under 13, working 48 hours.	"Youths" between 13 and 16, working 48 hours.	"Youths" between 16 and 18, working 56 hours.	"Men," working 56 hours.
Mixing composition	—	—	—	2
Cleaning, oiling, and cutting copper	—	2	—	—
Stamping and forming caps	—	2	—	—
Cleaning caps	—	—	—	1
Shaking into plates, &c.	11	—	—	—
Filling	—	—	—	4
Pressing	—	3	—	—
Varnishing	—	1	—	—
Drying and examining	—	—	1	1
Packing	14	6	—	3
	25	14	1	—

The Percussion Cap Manufacture.

Woolwich.

Mr. J. E. White.

In large establishments, like those in the Arsenal, little, if any, inconvenience is occasioned by the young persons employed having to attend school.

In order to prevent interruption to the work, and to give the full benefit of the instruction to the pupils, the times for attending school should be regulated in the same way as the working hours; that is to say, between breakfast time and dinner time, or between dinner time and the time for leaving work for the day.

Royal Laboratory, Woolwich,
15th April 1863.

E. W. Boxer,
Supt., R. L.

Mr. Tozer, Manager of the Royal Laboratory.—Percussion caps have been made in the Arsenal for 23 years. During that time there have been only two explosions at the filling; one about 15 years ago, the other with the present primer. I was about 20 feet off when the first happened. The flame was like a flash of lightning, but it did not reach far, and the report was about as loud as a musket. The plates were bent, but the floor was not shaken.

I used to mix the powder in a gutta percha bowl with a brush. That requires very great care, and only 12 ounces are mixed at once, but if I were to choose, I would rather do more at once than have to repeat the process often.

I never had an accident in the mixing, except once in trying an experiment, and then, though the quantity was not more than a tablespoonful, the explosion broke the windows and the bottles in the room, and nearly destroyed my sight and hair.

In all buildings in which explosive materials are kept the doors should be made to open outwards. This secures free exit and access in case of an explosion.

There is no danger from caps when filled. A handful may be safely thrown into a red hot vessel in the fire, thus (*shows by the experiment*). The caps seldom go off more than one at a time, as their brims prevent them from lying so close to one another as for one to light another. As many as 5,000 returned caps are sometimes put in a pan at once thus to be destroyed.

Colonel Boxer subsequently favoured the Commissioners with the following statement:—

"The number of children at present employed in this Department (May 13) is, girls 67, boys 17; total 84.

"The maximum number employed in the same description of work during the Crimean war was 1,200 boys, it not having been the custom at that time to employ girls."

The time the girls work is 34 hours per week, and is made up as follows:—

Five days attendance at 9½ hours	47½
Less 8½ hours at school, and 5 hours at meals	13½
Number of hours at work	34

The following is a statement of the earnings of the children and young persons employed here.

		From.	To.	Average.	No.
		per week. s. d.	per week. s. d.	per week. s. d.	
Making small arm cartridges	Boys — Under 13	3 9	7 9	4 6	13
	Boys — Between 13 and 18	4 0	14 6	6 0	89
	Girls — Under 13	3 9	7 6	5 0	67
	Girls — Between 13 and 18	4 6	10 6	6 6	67
Making caps—Boys	Under 13	4 8	6 6	5 6	4
	Between 13 and 18	4 8	11 6	7 6	11
General average—Boys	Under 13	4 6	7 6	5 0	17
	Between 13 and 18	4 9	12 6	7 0	100

211

PAPER STAINERS.

To Her Majesty's Commissioners.

Gentlemen, Manchester, July 1862.

Paper Stainers.

I have the honour to transmit to you the evidence which I have collected in reference to the employment of children and young persons in the manufacture of paper hangings.

Mr. H. W. Lord.

That manufacture, for which the term "paper staining" is a more complete, though not a perfectly accurate, synonym, mainly consists, as now practised, in the printing a pattern in colours upon sheets of paper by means, either of blocks which are applied by the hand, or of rollers which are worked by steam.

Nature and localities of the manufacture.

With this twofold division of the mode of production, the local distribution of the trade to a very great extent, corresponds; the chief centre of the block or hand printing being London; that of the machine printing—Manchester and its neighbourhood, including in that term Blackburn and Over Darwen. Out of the 25 works which I visited in London and its suburbs, and which comprehend all the larger, and most of the small establishments, in which this manufacture is there carried on, there are only three, in which machine work forms the principal portion of their trade; in some few more one or two steam worked machines are in use, but only as auxiliary to the hand printing, or to obviate the necessity of sending out occasional orders for a paper of a cheaper class to be done for them by another house.

Hand printing and machine printing.

In the north, on the other hand, where the majority of persons employed on paper staining works are machine workers, there are also many block tables in constant use upon the same premises for the production of patterns of a superior kind; and I met with but one case where all the work was done exclusively by machinery; in that instance the hand-work, which was required, was sent out to be done at a contiguous establishment, where nothing but block printing was carried on.

In addition to the paper staining works in the districts above mentioned I visited two manufactories at Leeds; I also received communications from Hull, Plymouth, Edinburgh, and Glasgow, in each of which towns there is one such establishment; but inasmuch as I did not learn that any features existed in the manufacture, as carried on in those places, of a character materially distinguished from those which I had already, by personal observations, ascertained to be generally prevalent in the trade, I thought it unnecessary to do more than forward the tabular form of queries to the employers in those parts, who have in every case returned them to me duly filled up. I have reason to believe that there are no parts of the United Kingdom, besides those to which I have already referred, where this manufacture is exercised to any important extent.

Grounding process.

As a process preliminary to printing a pattern, the paper, which comes plain from the mill, is, for both kinds of printing, generally, though not necessarily, coloured or grounded in one uniform tint: this is effected by means of large soft brushes, which are worked either by hand or by machinery. The grounded paper is then either hung up to dry slowly in a room of moderate temperature, or is made to pass rapidly through flues or over plates artificially heated by steam or fire for the same purpose; the latter mode being that generally adopted where the printing is done by machinery, and when consequently a quick and continuous supply of grounded paper is needed.

Brushing process.

To the better class of paper a polish or "face" is given previous to printing the pattern by subjecting the grounded surface, when thoroughly dried, to the friction of hard brushes, in some cases applied by the hand, but generally fixed in a machine worked by steam, or, more rarely, by hand. When the brushing is effected by machine, a fine powder of French chalk or china clay is scattered upon the paper, in order to enable the brushes to move easily over the coloured surface without detaching any of the colouring matter.

Dust raised by.

This powder, when the machine is in motion, and especially when worked by steam, rises and fills the "brushing" rooms with a cloud of white dust, which occasions a painful sensation of choking, and is very generally complained of as being not only unpleasant, but positively unhealthy; and this to such a degree, that in places, where the system of draughts and chimneys over the brushes has not been carried to much greater perfection than has been ordinarily attained, even where any such contrivance has been adopted, the men and boys engaged at the machine are frequently absent from illness, or have to be changed or relieved after a few hours' work.

Colouring matter, sometimes emerald green.

When the colouring matter is not properly fixed or "bound" on the paper, as occasionally happens, the brushes will detach it in the form of a dust, which mingles with the chalk, and in the case, which now however appears to be rare, of that matter consisting in any considerable degree of emerald green, is, and is admitted to be, highly dangerous.

Process of printing by hand.

The process of printing by hand is conducted by a man and one or two boys; each man has a table before him, on which is fastened a blanket pad or cushion; on his right hand, and in rear of him, is a square trough filled with a semi-fluid elastic substance, the surface of which is in contact with a covering of oiled tick or cloth; upon the upper surface of this cloth is placed a square sieve, on which the colour to be used by the printer is spread or teered by one boy, while the other, if there be two, or the same, if only one, from time to time draws the printed paper over a stand from off the printers pad, and lifts it up with a crutch to dry, hanging it in festoons on moveable rods laid across a framework of parallel beams fixed in the roof.

In this "teering" and hanging up the occupation of children employed in hand printing mainly consists.

Machine printing.

The machines used for printing or grounding are in all cases worked by men, who, so far as I could learn, always oiled and cleaned them themselves, and never while in motion; the children employed in connexion with them are for the most part so far removed from the immediate neighbourhood of the machine, while the paper is being printed, as to render any description of that process unnecessary for the purpose of these remarks; the few instances, in which they were employed in closer proximity to

Paper Stainers.
Mr. H. W. Lord.

the machine, are exceptional, and will be found sufficiently explained in the evidence, which these prefatory statements are intended to introduce.

Occupations of children.

The duty of children, who work in machine rooms, consists in most cases in laying or "plaiting" down the paper in certain lengths as it comes from the drying rooms, or in rolling up the printed paper, and in the processes incidental to that work, with the occasional variation of assisting the printers by removing and washing out the colour boxes, felts, and rollers, when the machine is at rest, and fetching the colour and paper when required, and in some cases in watching to see that the paper passes smoothly under the various rollers of the machine.

Marbling.

The process of making "marble" and other grained paper is one of a kind intermediate between that of grounding and that of printing. The marbler requires no aid in the nature of teering; so that the labour of children, who assist in that branch of the trade, is confined to that of filling in the clouded colour, when the marbler has pencilled out the veining, and of drawing the marbled piece from the table, and hanging it up to dry in the manner which I have before described.

Flocking.

In flocking, the printed paper, while the part, to which the flock is to adhere, retains some moisture on its surface, is placed in an oblong trough called a "drum." The flock dust, which is composed of a finely powdered cloth coloured by some vegetable dye, is then scattered thickly over the paper, and kept in continual agitation by means of beating with a rod the under portion of the "drum," which is made of tick or canvass. The flock printer generally has two children at least to help him, one of whom beats the drum, and whose face is generally covered with the dust that arises from so doing; while the other does the ordinary work of teering and hanging up for the printer. As the matter to be teered for flocking consists of oil, and not water colour, and is mixed generally with white or red lead, so as to make it stiffer to work, a roller is generally substituted for the brush, which is sufficient for teering the other kinds of work. The flock dust is spoken of as being unpleasant, but I did not hear of any case, in which lung disease had been attributed to swallowing it.

Rolling up.

When steam power is used for the purpose of printing paper hangings, the printed paper is rolled up by machines also worked by steam. These are generally managed by children of 12 years of age and upwards.

The paper, which is to be rolled up, is either carried from the printing room to the rolling-up room, the two being in all cases kept apart, or passes directly from the drying flues through the floor of the latter to the machine. The "rolling-up" boy or girl attaches one end of the paper to a steel rod, which is made, by a strap and pulley, to revolve rapidly on its own axis, wrapping the paper round it as it moves. As each length of 12 yards is rolled, the child cuts the paper with a metal blade, or tears it by the hand, and detaching the roll from the rod, lays it on one side in a rack, to be stamped with a number by the marker, who is generally a younger child.

The rolling up of hand-printed papers is done exclusively by the hand.

Meal times.

The block printers are, in the great majority of cases, paid by the piece, and hire and pay their own teerers. These leave off work for meal times, having an hour at midday for dinner, and half an hour for breakfast or for tea, according to the usual period of working hours; in some cases both tea and breakfast are allowed.

The men and boys have generally the option of taking their meals on the premises, or of going home or elsewhere for that purpose.

In those works in Lancashire, where machine printing forms the chief mode of production, the machinery, with the exception of that used for rolling up, does not stop for meals; but all, adults and children alike, have in all cases to get their meals in the workroom, as they watch the machine in motion, and this, whatever be the extent of overtime. In London, however, as a rule, and in Lancashire, wherever but one or two printing machines are used, they are, unless in seasons of especial pressure, stopped for dinner.

Ages of children.

The age of children employed in handwork varies from 8 to 14, but few in London are employed under the age of 10. In Lancashire they are sent at an earlier age to work, but I met even there but few instances of children working under 8 years of age. In connexion with machines, it is rare that any are employed under 10.

Female labour.

Female labour is not adopted in London either for hand or machine work. In Lancashire the occupation of girls is, in the former case, exactly similar to that of boys, but in the latter the only parts, in which they are engaged, are those connected with the rolling up the printed paper.

In one place, which I visited, a second girl was employed at each machine, near the further end of the paper, to mark on it the length for each roll to be cut off, as it passed up to the rolling machine, so as to catch the eye of the winding-up girl. In others either the printing machine made the mark, or the rolling machine was contrived so as to check itself by a catch-wheel at every 12 yards.

Children, where necessary to adults.

Whether occupied in "teering" or "hanging up" for the block printer or in "plaiting down" for the machine, the child's service is equally indispensable; there is no time during the process of printing, unless that occupied in changing a pattern and preparing for fresh work be reckoned such, when the child stands idle, while the man is at work; and even the exception, which I have suggested, is in most cases more apparent than real, seeing that the child is then generally assisting, though not so unintermittingly, in what is going forward. In "rolling up," whether by hand or machine, each child is, as it were, an independent worker, there being generally but one adult, an overlooker, for the whole room, in which a number of children and young persons are so employed.

Season trade.

The trade of paper staining is one which varies considerably with the time of year. In both block and machine printing the ordinary working day of 12 hours is at best but irregularly observed throughout the year; in the summer time the trade is in most cases very slack, fewer hands are employed, and short time frequently worked; the busy season falls generally within a period between the beginning of October and the end of April and lasts for some four months or more.

Overtime.

During that period children and young persons employed on machine printing are frequently, in the north, at work for several days together from 6 a.m. till 9 and 10 p.m. without any regular

cessation for meals or other relaxation; this practice does not indeed prevail in London to so great an extent as elsewhere, but even there the hours of overtime draw seriously upon the store of strength, which such children should be accumulating to meet the toil of after years. Paper Staine

Mr. H. W. Lor

In block printing the usual hours of labour are not exceeded so frequently, nor to such an extent; much of the overtime actually made is attributable as much to the irregular habits of the men, who, as piece workers, have the disposal of their own and their children's time to a very great degree in their own power, as to any alleged requirements of a season trade, or to any necessity from competition to complete orders for speedy delivery at short notice. Often caused by irregular habits of mer

The labour of children is not, in either branch of the trade, *in itself* fatiguing or injurious, but by the length of overtime, and, with the younger ones, even of the full day's work, it is made so.

It is to be regretted that the practice, almost universal in the north, of leaving off at 2 p.m. on Saturdays, has in but few cases been followed in London.

In two instances only, that of Messrs. Potter, and that of Mr. Snape, both of Over Darwen, has any system of working children in relays been adopted; those are said to be successful; it must however be observed that it has, in the former case, been applied only to 13 out of the 100 and more employed at those works, and I did not learn of any intention existing to extend it generally to all the children who work upon the premises. Examples of working chil dren in relays

Many of the paper staining works, both in London and in the north of England, are situate in airy and open spots in a suburban or even rural district; in most instances crowded neighbourhoods have been avoided; where this is not the case, still some sort of open space has in general been preserved in the nature of a yard adjoining the manufactory, and being either common to several other buildings or within the actual circuit of the works. Situation and state of place of work.

I have found, wherever the printing was done by hand, light, air, and space prevailing characteristics of the workshops; the nature of the block printing is such as to necessitate the presence of much light and considerable space; the former for the accuracy requisite in laying the block for printing, the latter for hanging up the pieces when printed to dry; in all places the windows are made to open, and in most I found them open when I entered; the colours generally used have little or no offensive smell, that of the size is somewhat sickly, and the turpentine varnish, which is occasionally used, as is also white or red lead in the size for flocking, is at times disagreeable; I did not however learn that any ill effects came from any of the above causes.

Owing, perhaps, to the limited extent to which the trade is carried on, the attention of the medical profession does not appear, so far as I have been able to learn from local practitioners, to have been specially directed to its effect upon the general health of those employed in its various branches. From the account given by the men themselves, it would not seem that paper stainers are as a class either sickly or short-lived. Many of the children, however, who work in the London shops, are pale and under-sized; the men there are also pale and rather below the average in muscular development, but, perhaps, not more so than is the case with most workmen confined to in-door occupations in the metropolis; both men and boys seem healthier in the north. The nature of their work tends to encourage untidiness and dirty habits, their dress, face, and hands being generally more or less smeared with paint. This is the result of mere carelessness in most cases—some I have seen working quite clean,—but it is the cause or excuse for the very ragged and unclean state of the children's dress, which is almost universal: that such is not the unavoidable result of their parents' poverty, the condition of those employed at Mr. Cooke's of Leeds and at some other places convinced me; on the other hand the "mess" for which the trade has at all events a reputation, probably tends to prevent the more respectable parents from sending their children to work in it. Physical con dition of ope tives.

The question of cleanliness becomes important in reference to the effect of using deleterious substances, and particularly the emerald or arsenic green upon the health of those who work on them; for though many, both workmen and others, whom I consulted, differed as to the extent of the danger and injury attributable to that cause, all were agreed that a very great deal depends on the cleanly habits of those who have to use them. Cleanliness particularly necessary.

In that portion of the works, both in London and the north, where the printing is by steam machinery, the shops are much closer and hotter than they need be, and although there is less opportunity of paint getting upon the persons of the workmen and children there than in the block shops, they claim a general privilege of dirt by virtue of their being in the machine room; in this respect the premises in the north are generally superior to those in London, where machine printing is carried on; the children employed at machine work are certainly not more ragged than the "teerers" and "hangers up" for hand printing; nor are they more ignorant or worse mannered. Want of ven lation and cleanliness.

Accidents from machinery are rare; the "rolling up" machines, at which girls are employed, are very light and simple; with the heavier printing machines the accidents, which have occurred, have not been generally such, that "fencing" would prevent; wherever upright shafts and heavy driving straps are used, the need of fencing is recognized by all. Accidents fr machinery.

I am bound to state, in justice both to employers and employed, that I have not, in my investigation of this trade, met with any of those painful instances in children and others of impenetrable stupidity, and of hopeless indifference to, and ignorance of, all things around them beyond the mere routine of their own daily labour, which attach so lamentable a stigma to many of the trades and manufactures reported on by the last Children's Employment Commission in 1843. State of edu tion.

In the course of visiting the various works, in which the accompanying evidence has been collected, I have made it a practice to test to some degree the extent of education among the children and young persons. I have endeavoured to do this by requiring some of ten years of age and upwards, whom I picked out as they worked, and who appeared likely to be fair average instances of their class, to read a few lines of a simple hymn from a small book printed in a type rather superior to that of the ordinary hymn book.

Paper Stainers.

Mr. H. W. Lord.

Best results of education were among the half-timers.

The majority have at once admitted or alleged that they could not read at all; and, as it did not appear to me that those, who thought they could, were generally disposed to shrink from being tested, I have confined any further investigation to the minority; of them very few could read with ease, most spelt the words letter by letter, some did not know all their letters; in most cases when the reading was at all good, home teaching rather than school seems to have produced that result, except in instances of children who had been for perhaps a year or more consecutively employed as "half timers" in a factory. In the north, speaking generally, the great majority of those children, whom I found capable of reading and of understanding what they read, had been for some lengthened period in a factory school.

Mere confirmatory testimony not printed.

After having carefully collected in the three or four works of either class, both block and machine printing, first visited by me, a large body of evidence from the men and children employed, I found that throughout the trade that evidence was so generally confirmed, as to render it needless in my opinion to encumber myself with taking notes of what would be mere accumulation of confirmatory testimony. I, therefore, though in each case I made a point of questioning both workmen and children as well as foremen or managers, have abstained from placing on record all the evidence actually given by the former class. I have, however, preserved all statements especially worthy of notice, which had not previously been in effect made to me by several other persons.

I may add that in every instance, in which I was not accompanied by the proprietor or his foreman in going round the works, I have read to such person or submitted to him for perusal a copy of the evidence which I took down.

There has been very little difference of opinion between employers and employed; where any has appeared I have been at pains to note and to elucidate it.

I have, &c.

HENRY W. LORD.

Over Darwen.

MESSRS. POTTER AND CO.'S WORKS, OVER DARWEN, LANCASHIRE, MAY 1862.

Mr. J. Gerald Potter.—I am the principal partner in the firm, but Mr. Preston will be able to give you better information on the detail of our works than I can. Upon the need that exists generally for some compulsory limitation of the hours of labour for the young in our trade there cannot well be a difference of opinion; the only question is as to the form which Government interference should assume. The Draft Bill, which you have, was drawn up by me last year, upon the model of the Bleaching Works Act, 1860, and submitted to Mr. Baker, the inspector of factories, who took great interest in the matter.

We have a considerable variation in our working hours at different times of the year; from June to September there is little done; we are now turning out about 70,000 pieces a week, and working from 6 a.m. to 6.45 p.m. with some of our machines, and the rest till 6 p.m.; our slack time is coming on; from November to April we do as much and work as long as possible; in our busy time as many as 150,000 pieces a week are printed by us, and then we work from 6 a.m. to 10 or even 11 p.m., making about 90 hours in the week. Our average for the year will be about 110,000 pieces a week. We do chiefly machine printing; we have, however, a good number of block tables now in use. Our works are the largest of any in the country, except, perhaps, Messrs. Heywood's, of Manchester. We employ 122 children, of whom 91 are boys and 31 girls; 14 boys and 5 girls are under 10; 3 boys are between 7 and 8, they are the youngest; there are 27 young persons and 126 adults; of them none are females. Out of the total number of children and young persons, 109 are employed in connexion with machines, and the rest, 40, are employed in either teering and hanging up for the hand printers, or assisting the marblers or in packing. The only machines with which the girls have to do are those for winding up; the rest of them work for the hand printers.

I have no particular wish to retain the clause in the Draft Bill which exempts us from the provisions in the Factory Acts relative to fencing machinery; most of ours requires no fencing, but some certainly does; and, perhaps, it may be as well to have that made necessary, though in common prudence and regard to his own interest an employer would see to that being done.

What we cannot have is the factory scheme of meal times; it is absolutely necessary that we should have no stoppage for meals; to stop an hour for dinner in our establishment would cause a loss in paper and colour of nearly 1,500*l.* a year. You will hear what the men say about that, and remember that they would not give you more than the minimum waste, if they thought you would tell me, for I made a great row about the waste that took place, as it was, about three months ago; besides, each man will speak only from his knowledge of what his own machine does, and there is a wide difference; some are much more careless than others, and let their boys be too, and will waste and spoil twice the amount that others will. At all events we know there is a terrible loss of paper and colour somehow; paper tears so easily, and that makes the chief difference as compared with the waste of cotton or silk; and yet we supply paper from our own mills, and with every opportunity of working up waste pieces afresh.

You may depend on it that those, who differ from me on this point, have never really considered it; it is surprising, how people will go on from year to year submitting to waste, or utterly ignorant of it. Those, who do stop their machines altogether for meals, will be those, whose work is chiefly hand printing, and who, probably, have never had occasion to give a thought to the matter.

We made an approximate estimate of our loss last year in waste of paper only, and found it amounted to 62*l.* a week, after allowing for the price of the waste, which we sold at $5\frac{1}{2}d.$ per lb.

Since making that calculation we have looked more carefully to it, and have kept a book for the actual waste of each man every week. I give you the result for the five weeks last past; in the week ending June 19,* we printed 61,000 pieces and had 2,992 lbs. waste (a piece is about a pound weight); in the week before, 60,000 pieces, and 3,386 lbs. waste; in that ending June 5, 83,000 pieces and 2,720 waste; May 29th, 78,000 pieces and 2,766 waste; and May 22nd, 81,000 pieces and 2,881 waste. The value of that is of course less than it was last year, by reason of the paper duty being off, but now that will still represent an average weekly loss throughout the year of some 53*l.*, which the stoppage of our machines for meals would increase very seriously; and the waste of colour is not taken into consideration at all.

Our hand workers have their meal hours, but only 25 of our machine workers, who are under 18, have; those are the 18 winding-up girls and 7 boys who are some of them in the brushing room and others at work indirectly connected with the machine. They all leave the premises for their meals, though that is I think a doubtful benefit; I often see the factory girls coming back to work after dinner with their clothes wet

* The evidence contained in this paragraph was given upon a subsequent occasion.—H.W.L.

through ; if they had stayed in the mill that would not have happened.

If the Bill, which you have a draft of, is passed, the maximum of children's labour in our trade would be the six hours, from 6 a.m. till noon, or noon till 6 p.m., there being no time fixed for meals, and they would dine before or after they came to work, as the case might be.

Mr. Preston, managing partner.—We have about 20 boys in this room, chiefly engaged in "plaiting down ;" 13 of them work in relays. "Plaiting down" is laying the paper in lengths with a stick as it comes off the drawing rollers from the drying rooms. One set of these work from 6 a.m. to 1 p.m., and the other from 1 p.m. until the end of the day's work ; and the set that has taken the morning work for one week takes the afternoon for the next. We have found the advantage of this great ; in some few cases the parents have come and asked us to take their children on half-time, but the lot of parents don't care a screw about education, they are all for the money. We make it a condition of taking them for half-time that they should go to school in the spare time ; they may go to any school they like and we pay for the schooling.

The children often work 14 hours a day ; the work throughout the year is from 10 to 14 hours ; 15 hours is exceptional, perhaps for one month in the winter they work that. In July we don't work more than five days of 10 hours in the week ; 57½ hours is what I consider full time for a week, any more than that is overtime.

The only machinery about which we employ girls is the "winding up," that is, "rolling up ;" there are 15 so employed, one to each machine ; and three or four younger ones, all in the same room with the 15, have to stamp the rolls with a number ; those last get about 3*s.* a week, the winders from 5*s.* to 7*s.*, that is exclusive of overtime. We pay the foreman of the room, where they are, so much per 1,000 pieces, and he hires and pays them : this is the room ; it is warmed with pipes in winter. Two boys come in and out of it to wheel away the rolls to a hoist, and go up with them on it to the floor above, where they are piled. The rest of the girls are employed in the block printing, teering and flocking and hanging up. There are three privies for the girls apart from the rest, but I expect they are all used indiscriminately.

The only accident I remember in 23 years was where a new boy hurt himself by pulling a strap about, but that was not very serious ; our machines never work fast, and the straps generally are light and hang loose on the pulleys. I think that a driving strap passing through the floor should be fenced : this has been fenced once, and ought to be now.

I should say that in Manchester, or any large town, it must be easier to get boys than here ; they stop with us till about 13 and then go off to the factories, where in about a year they can get 12*s.* a week or more, in ordinary times of factory work, that is.

My orders are that no boy should be allowed to come under 8 years old, and unless he is healthy. The work is not, in itself, unhealthy ; when the enamelled paper is printed with under-sized colour, the rolling up of that is bad, but that is not often so, and does not last long, neither the work, nor its effect on the health ; it is the time that is bad, even 12 hours is too long for children.

Andrew Kay, foreman of machine printers.—Have been here 14 years. In this room we have a man to look after the straps, and to see that the work comes properly through the rollers ; he looks after the boys too : there are two of them to each machine, plaiting down in turns ; the one who is not plaiting assists the machine man at anything he wants, or does nothing till his turn comes. If we couldn't get the two boys, one man might do their work. Last summer they were paying boys 7*s.* and 8*s.* in the factories, so then we found it difficult to get them ; just now they are plentiful enough, because there is nothing doing in the mills.

I took particular notice of the average sickness of our men and boys in this place last winter, as compared with those employed in factories, and I believe that there was less with us.

Stopping an hour for dinner would be very well for us, but it would be a serious loss to our employers ; besides the hour or whatever the time was, if as much as 20 minutes or half an hour, we should have to work for a good 20 minutes, when we began again, before the felts got moistened and the rollers took on the colour well : when we start in the morning, that takes us more than half an hour, for the felts are dried hard and must be made pliable ; and besides, whenever a machine stops, there are from three to five yards of paper at the very least spoilt ; the extent will depend on the girth of the machine, the length, that is, from the first to the last roller which is being used ; next, the chances are that the boy in winding over the first piece, leading it, that is, with a string along from the machine through the flue and back to the drawing rollers, will tear it away once or twice, and there is five or six yards again gone each time. I could not stop for an hour or even half an hour without breaking off, for if I left the length in the flues, the drying rooms I mean, the whole of it, 36 yards about, would curl up with the heat and become brittle and useless.

Robert Preston, machine-driver.—I don't think the loss in waste from stopping an hour for dinner would be so much as Kay says. If this 10-colour machine stopped now for an hour, not more than 4 or 5 yards would be spoilt. The boys don't, as a rule, break the paper off in winding over, and the paper often stays for nearly an hour in the flues, while we are changing the sieves or felts to put a fresh colour, and gets no harm. The felts would not dry or harden in an hour, though they do in a night. We are told not to leave the paper in the flues, but we do it still. We do generally put a little waste on, a dozen yards perhaps, to get the sieves moist and fit for running ; the rollers soon get dry, and would stick to the paper, if the sieves did not put fresh colour on them ; they do stick sometimes, and then the paper goes. There would be no loss to speak of from the colour caking in the boxes ; I don't think it would cake in an hour.

Just now we are working from 6 a.m. to 6.45 p.m., but we have been working from 6 till 11 p.m., and more too, at times, without leaving for meals. This room is very hot when there is no wind or when it is closed up in winter ; above 110°. The flues for drying are terribly hot, but the boys only go in there when the paper breaks to pull it through ; that takes about 3 or 4 minutes perhaps, and may happen several times a day. In the older part of these works there are, what we call hot holes, instead of flues ; they are nearly as hot as the flues, and the boy has to be up in them a score of times and more a day to feed the fires, but they are going to be done away with.

We want the Factory Acts in our trade. If the children could but be taught at school up to 13, they would afterwards teach themselves at home. It is the young marriages that bring the children here so young. The parents marry when they are children themselves, and send their children to work as soon as ever they can.

Jeremiah Leach, foreman of winding-up room.—The girls, who are marking the rolls, are from 8 to 11 years old, and those that roll up, from 11 to 14. I have been here 15 years, and never heard of any accident. They are very healthy now. Last winter 6 out of 19 were away from ill health at one time, from over work, that is to say. None have been absent for the last three or four months ; when we work longest, they are most away. I have to bawl at them to keep them awake, when we are at long overtime. Sometimes a flattering word, and sometimes a cross one, but not often beyond words. They do about 120 rolls an hour, and I pay them 5*s.* and 5*s.* 6*d.*, and the stamping girls 3*s.* 6*d.* ; that is the average.

I was once made ill by the dust of emerald green ; that was in making the colour, but not so as to be absent from work. If they would wear a handkerchief round their mouths and nostrils, they would feel

er Stainers.
er Darwen.
H.W. Lord.

it less, but I never knew one made ill by it; it is only irritating. One, who was here 5 or 6 months ago, was working a green pattern that blew off a good deal, so that she was nearly covered with the dust in about 4 hours; she was absent for a day or two, and her mother said it was the arsenic. I don't know whether a doctor saw her. The effect on me was to give me a headache and make me dizzy.

I could not manage this room with relays as things are now, but my employers perhaps might, the work comes in for winding up so irregularly. Now we are doing only 7 hours a day. Next week we may do more than the full time, and in winter 16 hours and more. Half-time and education would be a grand thing.

William Duffy, satiner.—The loss in waste from stopping that padding (grounding) machine for an hour for dinner would be that of the 7 yards now on; but we should lose another half hour, one quarter in starting before everything would run well and the other quarter for washing the brushes. We take a good half hour and lose two pieces, about 24 yards perhaps, before we get into working order, when we start in the morning; and if we did not wash the brushes, they would be clogged with the colour dried on them, and would make the paper so gritty that it would not take the print of the block. In factories the only loss in stopping is merely that of the time of actual stoppage.

I have been working 16 or 17 years at this, since I was 14. Before that I went to school, and so can read. I have seen when the children could none of them keep their eyes open for the work; indeed, none of us could. In winter we have had to stay till 7 on Saturdays, and even now some of them down stairs don't go on Saturday till 4.

If the factories were busy now we should scarcely have a boy. We have had before this to put on bigger boys and pay them more of course, 11*s.* 6*d.* a week, to keep them from the factories, where boys of about 14 would soon get two looms and be earning 12*s.* One man would not do the work of three boys, for they are each wanted for this machine to be at the same time in different places. We have no spare hands. That boy who is over 13 is handing down from the hanging-up machine. I don't think you will see such a machine anywhere else. So long as this grounding is going on, that must go on too; we could not spare him, unless some one came in his place.

John Hoy, foreman of block-printers.—Am 27; began teering at 11. This is the most regular shop I ever was in; the men can't work after I go, unless I let them, and I only do so when we are very pressed. The children are very ignorant; for the rule with parents is "Never mind education, bring me in money." There are 18 girls here teering and so on, they are better than the boys; more attentive and cleaner. I have had one as young as 7. All are healthy. The latest we worked last winter was till 8 p.m., for about a month; three years ago we were as late as 10 and 11. We have no men over 50 at work here, but there are plenty living on beyond that, who have worked long at it.

If overtime for young persons were not allowed, it would be a very good thing for the trade; for more would have to be employed; it is difficult to get boys, when the factories are working full time; for there is always a good chance of getting advanced in a factory; but a teering boy has very little, and a machine boy none at all; and that applies much more strongly to girls, who haven't a chance even at teering, for they could never print.

Henry Southworth, jobber.—When my boy began to work here, he was 7, and he worked at 9 years old the whole winter from 6 a.m. to 9 and 10 at night, plaiting down in the hot machine room, without stopping for meals. We can't get them to go to school even on Sunday, when they are overworked in the week, for they lie abed all day to rest. We should all be glad of the Act to regulate them like the factory children, for their health and education too.

John Macnally, block printer.—Am 42; my boy and girl are helping me, she is 13 and he 10; they go to a Sunday school, and I hope to send them to a night school this summer.

[I tried both these children with large and small print; the girl could read a very little, the boy not at all.]

Benjamin Whalley, machine driver.—Am past 17; began at 10; can't read at all; we should all like to be under the Factory Acts.

James Gandy, satiner.—Am 20; began teering at 8; went to a night school as a boy now and then; have only been able to get to Mechanics' Institute for one quarter in the year, there has always been too much work except in summer.

Thomas Winstanley, plaiting-down boy.—Am 11. In winter work always till 9 p.m.; had often had 15 hours a day for a week; sometimes 13 hours on Saturday.

[Reads a very little.]

John Ainsworth, brushing boy.—Am 13; began 2½ years ago; the French chalk hurts my chest; a year ago I was absent owing to it for three days; we were brushing greens then, and that is worse; often work 15 hours a day in winter.

Benjamin Morris, plaiting-down boy.—Am 10; began at 8; go to school; am a relay boy; a half-timer; can read a little.

[Only large print.]

Mark Cary, plaiting-down boy.—Don't know my age; am a full timer; not a relay that is; go to night school.

[Reads a little.]

Mary Ann Berry, winding-up girl.—Am 12; go to Sunday school; get very sleepy when we are working overtime; all the girls do; the green makes my nose sore, but I never had to stay away for it.

[Can read slowly.]

John Lightbourne, wheeling-out boy.—Am 13; began to go to a night school four years ago, and do still; we worked last winter till 9 in this winding-up room, and the winter before till 10. I used to cry with sore feet every night last winter. The girls get very sleepy.

[Reads well.]

Robert Preston, the same as at p. 5.—Those boys that came forward to you yesterday, Sir, were the ones that wanted to show off that they could read; those that couldn't hung back. I went round to all the 25, from 9 to 13 years old, in this and the next room; 11 of them can't write their own name, and four of those are over 13; they generally can write their own names before they can read.

Usher, brusher.—I look after the brushing machines, and brush by hand as well. I used only to brush by hand five or six years ago, and was not then in this brushing machine room. I used to be better in health and stronger before I came up here; sometimes after brushing the heavy greens by hand my nose would be sore then, but I was never hurt any more than that; by the heavy greens I mean the darker emeralds, which have more arsenic than the lighter ones.

This boy of mine began to work at 9 years old at a brushing machine, he is now 12. He worked with a boy named Leaver, who died in July 1860, at the same machine, within a month of his death; the room they were in was very hot then, and they were working very long hours; it was that, I think, and the chalk, that killed Leaver; but perhaps the arsenic finished what they began. My boy says the green never made any difference to him, certainly he never had to miss a day from illness; but the heat and the hours, or something, pulled him down a good deal. The chalk is bad enough by itself.

Andrew Kay, the same as at p. 5.—I remember Leaver dying; I think it was the long hours and the close confinement, not the arsenic. The room used to be much worse than it now is: there was

217

Paper Stainers.

Over Darwen.

Mr. H.W. Lord.

scarcely any draught; now it has two more windows. Usher, who brushed the greens then, complained to me of the excessive heat. We brush all our dark-emerald greens by hand, never by machine; the lighter greens have a great deal of satin white mixed with the emerald green, those we do brush or polish by machine; the paper would be spoilt if the brush could get the colour off; perhaps a little of the colour dust might be detached without spoiling the paper; it would be dangerous to brush the dark-emeralds by the machine, because so much more arsenic would come out of them in the same amount of dust.

George Aspden.—I went to work at Mr. Potter's paper staining works 14 years ago last Christmas. I remember a boy named Leaver, who was there dying in 1860. If ever a boy was killed of arsenic green, he was; that's my opinion; he was at the finishing machine and I was at the brushing machine; we never brushed green, that is we never put a face on common machine greens, but finishing is about the same as brushing, and the greens used to be finished for the block printers by the machine that boy worked at; it was in fact in the same room as mine, only there was a kind of partition. It is quite true that if the colour were brushed off the piece would be spoilt, and so many a piece is continually spoilt; for if the colour is soft it will brush off, and if it is too hard the block printers can't put the print on; so it has to be very nice. I have "finished" greens, and have felt the difference between working them and the simple French chalk, though that is bad enough. I began to spit blood two years ago before I went to Mr. Potter's, but that made it much worse; he has always been very kind to me, has Mr. Potter. There is that girl of mine, she is 13, she works there generally winding up, but she has been away several days with a bad throat; her nostrils were sore and her eyes smarted, but our friend, the doctor, there is looking after her now.

That boy of mine, too, he used to work at the brushing machine there till I got something else to put him to; when he was 7 year old I used to carry him on my back to and fro through the snow, and he used to have 16 hours a day; he is about 14 now. I have often knelt down to feed him as he stood by the machine, for he could'nt leave it or stop.

Mr. J. H. Wraith.—I am a surgeon resident in Over Darwen; have been in practice there for 23 years. I attended the boy Leaver in his last sickness. They did not tell me till the day before he died where he had been working. I thought it till then a case of gastro-enteritis; but when I heard of his having been among the greens I felt sure that it was a case of arsenical poisoning. He had had all symptoms consistent with that—a parched tongue, bloodshot eyes, inability to keep anything on his stomach.

I did not know that Aspden's girl was working "among the greens" till he mentioned it just now. I have been painting her throat with iodine, and using caustic. They must not let her go back; it is slow poisoning.

Mary Leaver.—I am the wife of John Leaver. My late son James died July 7, 1860, aged 14 years and 3 months. He worked at Messrs. Potter's paper staining works. About two years previous to working at Messrs. Potter's he went to the factory, and was a very healthy boy. When he first went to Messrs. Potter's he rolled up paper, after which he went to the brushing machine. He had not worked long before he began to itch about his nose, and his eyes became inflamed. He always complained of this after working the green colour. After some little time he complained of being very thirsty, and of being griped. He often said, "Mother, I have a terrible pain in my belly; "working amongst that green always makes me "ill." He was several times off his work, owing to being so badly griped and purged, but got better again in a few days. He was always thirsty, and said his food which he ate in the shop did not taste as it should. When he came off his work about the 29th of June 1860, we thought, as he kept being so ill, he should not return there, but go to the factory. He began to be very sick; he never kept anything on his stomach after the 29th of June. His inside, he said, was dried up, he was so thirsty. He had dreadful pain in his belly, and was fearfully griped and purged until he died.

MESSRS. HEYWOOD, HIGGINBOTTAM, AND SMITH'S WORKS, HYDE ROAD, MANCHESTER, JUNE 1862.

Manchester.

Mr. Smith.—I am a managing partner in this firm. Ours and Potter's are, I should say, the largest concerns in the trade. You will probably find the nature and times of work very much the same with us as with them. The children do work a great deal too long. From 6 a.m. to 9 p.m. is much too long, and that is the case for by far the greater portion of the year. They could not, when they are working those hours, go to school, even if they would. We work on, with no stoppage for meals, so that the day's work of 10½ hours is finished by 4.30 p.m., and all after that is overtime, and we seldom leave off working before 6 p.m., so that we are really working overtime the whole year round.

By far the greatest portion of our work is machine work. We have, however, some 20 block tables, and some of our grounds are occasionally done by hand, as is also the marbling. We have 76 children, of whom 20 are girls, and 76 young persons of whom 12 are girls, employed on our premises. Of those 50, at most, are attached to the hand workers, and all the rest are engaged in connexion with machines. Our adults number 140, among whom are 8 females; the latter, with the exception of 3 in the stock room, are engaged in winding up.

For all those children and adults alike the average work in the last 18 months has been at the very least 7 days 5 hours, or 78½ hours a week. For the six weeks ending May 2nd this year the average was higher—8 days, or 84 hours a week. The labour, however, in machine work is not great; it chiefly consists in watching.

We have never tried relays, and doubt its applicability to our trade; the probable effect of that, as also of any other limitation of working times, would be either a vastly increased outlay of capital for machinery, or the substitution of adults' for children's labour. At all events, if anything is to be done by way of limitation, the only way in which any good can come of it is by its being made compulsory through Government interference.

The men and boys are all healthy. They have just now started a sick fund. That is in place of a library and reading room which was established some time since; we gave rooms and started it, with penny subscriptions to maintain it, but even the men could not find time to use them, and so they dropped.

The arsenic green which we have now is better than it used to be. It used to be very granular, and killed the size, so that it would not bind, and would rub off very easily; and the dust from rolling up was very bad. But there is nothing of that now.

There would be a great loss in waste of colour and paper, as well as of time beyond the hour, if the machine stopped for dinner; the mere extra ¼ of an hour in starting afresh out of 10½ hours is 2½ per cent.

John Boden, machine printer.—This machine prints 14 colours. I have three boys and a young man to help me. The smaller machines require only two. Of those three one "plaits down" at the other end beyond the flue. Another is the "holder-on;" he has to take care that the plain paper goes properly up over the roller to take the print. The third cleans the sieves and rollers and such things whenever we have to change, and does odd jobs about the machine. I never let the boy moisten the sieve while in motion. When the paper

Paper Stainers.
Manchester.
Mr. H. W. Lord.

breaks, the boy has to go into the flues and lead it through again; that only happens when the paper is not of good quality, and he does not stay in more than three or four minutes each time. But yet I have known them have to go in so often, that they could not stand for the burning. What is seriously injurious is the long hours in a hot, unwholesome atmosphere; for eight months in the year they work here from 6 a.m. to 9 p.m., with no break for meals. I don't think stopping for meal times is at all necessary, if the half-time and overtime clauses of the Factory Acts were brought to bear in our trade. Stopping would occasion a great loss to our masters, and I think it is our duty to consider their interest as well as our own. There would be the loss of time at starting fresh, ten minutes or a quarter of an hour; then the flues would have to be kept up all the same; and, beside that, the waste of paper and colour. I should think that the loss in waste from the 10 machines in this room stopping for meals would be 1*l.* a day.

I was one of a deputation from the operatives to the masters some two years ago upon the question of hours of labour. Some of them were very willing to meet us, but they were afraid of each other. If the larger houses had agreed to work 10½ hours, the only effect would have been that a great deal of their work would have gone to the smaller houses, who would have worked night and day.

We can always get a good supply of boys here in the winter, even when the factories are working full time; but in the summer, when the brickmaking season begins, they are off to that. Our work gets slack in summer; from June to August we don't go on much after half-past four in the afternoon; the children could go to school then, but they don't, many of them; the boys are about as low as any working boys: that boy's mother looks after him, and that's why he looks better and can read a bit.

A young man was killed the other day at one of the large machines, but no fencing could have prevented it; he was oiling it, and put his hand through the framework instead of by the side. When our shafts or driving straps pass through the floor, they are boxed or fenced generally.

I have never known any permanent injury from working the emerald green; the irritation with some constitutions is so great that the whole skin peels off, but fuller's earth will always prevent that and set all to rights.

We close on Saturdays at 2, our proper time is 3½, but we take the 1½ hours out of Friday's overtime.

Thomas Clary, foreman of marblers.—I have been 20 years in the trade, and never heard of a death from the arsenic. I have worked for a fortnight together at what is called Egyptian green marble, that is arsenic, and had my fingers cracked and sore with it, but it all went off when the work ceased. I believe the brushing makes them suffer, but there they have the French chalk. I have been for six or seven years in this room, and we have never had a case of sickness. We marblers contract with the masters, and pay the boys ourselves; there are 17 in this shop, the youngest is about 11; as a rule the young ones are brought by their parents to work with them. The room is very hot from being over the machine rooms. We are now making 60 hours a week, and are expected to work as long as we can. When the weather is very hot we give over during midday and work in the cool of the evening. We have the usual meal times.

Hugh Quigley, brusher.—I have been at this for six years; there are three boys connected with the two brushing machines which I look after; I have had them all sneezing violently with the dust in brushing a paper padded with the arsenic green. If the colour is in any way soft it comes off and flies about. It is much worse than the ordinary effect of the French chalk by itself. My chest feels much more hot and my eyes get sore and there is a rawness about the stomach. I would not go on working for months at it. The boys have sometimes been very ill with it; have been away for a day or so, and had to take opening medicine; that they have to do for the chalk as well. I make them tie a handkerchief round their mouths. Those chimneys above the brushes for carrying off the dust don't work well, there is not enough draught; I have nailed a blanket to make the flap reach further over the brushes, but even that does not keep the dust in. I am not surprised to hear even of a death arising from brushing arsenic papers; none of the other workmen, who have not been in a brushing room, know what it is.

Emma Rayner, winding-up girl.—Am 19; there is one older than me, nearly 20. We have nine winding-up girls, nine markers, and nine turning in. Three girls to each machine. We are paid 7*d.* a thousand pieces and the markers 5*d.*, and do from 12,000 to 16,000 a week; then there are eight numbering girls who get 5*s.* a week; those and three older ones in the stock room are all. Most of the girls go to Sunday school; I do, and to church too, and to evening school in summer. The long time is what is bad for the younger ones, nothing else. I began at 12 years old.

Margaret Hardy, winding-up girl.—Am nearly 19. Began nine years ago marking. Cannot read or write. Arsenic green never hurt me in winding it up. The smaller girls, who lie at the other end marking the lengths of pieces as the roll passes up through the floors, get very sleepy. We work from 6 a.m. to 8 and 9 p.m. most of the year. We stop for meal times.

Elam Hannah, block printer.—Have been at this work for 20 years, and never had a day's illness. Have worked six weeks together on emerald green. We work generally from 6 to 6, perhaps till 8 p.m. for two months in the year. We must stop at the closing time whether we like or not, and are not allowed to work overtime to please ourselves. There are 16 tables here and about 24 boys; I don't think we had any difficulty in getting them even when the factories were on full time and the brickmaking was going on. It is much better for men and boys and for masters too to be regular, instead of not working at all at the beginning of a week and doing double work to make up at the end.

Over Darwen.

MR. W. SNAPE'S WORKS, OVER DARWEN, LANCASHIRE, MAY 1862.

William Snape, proprietor.—We have 10 block-tables here, and shall have more soon; two printing machines, two padding, and one brushing. I have been a workman myself, and my inclination is to let the men go for the meals, but I am sure that stopping would be seriously disadvantageous to us. Besides the loss of time in getting the sieves moist and in getting the colour well upon the rollers, there is always a loss of paper and colour in starting; the loss at night from the caking of the colour in the colour boxes will be for a 10 colour machine at least 5*s.*; it would not be so much after an hour's stoppage, but still it would be considerable. There is also always a loss of paper and colour in running over. The average is two pieces lost, whenever the machine is first started. The rollers get jerked out of their position, and would work the pattern wrong, if we did not run some waste over and re-adjust them. If the paper was left in the flue for the hour instead of being broken off, it would become so brittle and singed as almost to turn to tinder in your hand; the colour too is injured by remaining long in the extreme heat; the edges of the paper curl like a rope, and the piece cannot be wound-up.

From March to June we work from 6 a.m. till 6 p.m., and from June to October till about 5 p.m.

Ours is a season trade, our busy time being for six months from October to March, when we work from

Paper Stainers.
Over Darwen.
Mr. H. W. Lord.

6 a.m. to 10 and occasionally 11 p.m. I have had great difficulty in getting boys, before the hard times came upon the factories ; we have had to employ them above 13, paying higher wages ; one such cannot do the work of two generally, for they are wanted in different parts at the same time. We have 21 under 13, eight of whom work at the machines, and the rest for block printers. Last year a boy only 6 years came to work here, but I sent him back. We have one now only eight years old. The girls—there are 10 of them —only teer and wind up ; half the time they are playing in summer. This winter part of our machinery was working night and day. We are going to put down additional machinery. Now we work till 7 p.m. and next month shall leave off at 5. On Saturday we never, even in winter, work after 2 p.m. I have had the younger boys working relays of eight hours, and found it do well. Those above 13 can now get extra wages by working overtime. There are 10 of them, and all are machine workers. For full time, 6 to 6, we pay less than the factories, and they would go there if we did not raise their wages. The factories have a continuous trade, we find ours all at once drop. In printing stock all we have to guide us is the first few orders we take in the year. To keep much stock for us would be ruinous.

We use some machinery which ought to be fenced. I think the large driving straps ought to be, and the upright shaft should be boxed. Since we commenced with machines six years ago we have had three accidents, they were nipped fingers, and the doctor's bill for all was 1*l.*

We have two lads for each printing machine plaiting down, each in turn so as to relieve each other, and there are three to the two grounding machines, one to relieve either of the others.

Isaac Cooper, machine printer.—Last winter we worked this machine sometimes 16 hours a day, and generally from 13 to 14. The boys worked on as long as they could, but we men had to contrive to let some go an hour or two earlier, and plait down and do odd work as well as we could ourselves. There is nothing injurious in the nature of the work, it is only the length of time ; the boys get very sleepy. Our printing and our grounding machine ran night and day last winter; there were two boys then working 12 hours each. Now the children have time to go to a night school. If we stopped for dinner hour we should have to break off ; 8 or 10 yards would then be wasted between the rollers, and the same again at starting ; the pattern too would be thrown out. In starting fresh the chance of breaking, while running the piece over, varies according to the nature of the pattern and paper ; when there is a heavy pattern, that makes the paper moist, it is more likely to give way to a slight tug ; the boy has to draw it with the string attached through the flues and back, so as to get it even and smooth within the draw of the drawing rollers.

Henry Lampster, foreman of winding-up room.—The girls are from 10 to 12 years old ; they get 4*s.* 6*d.* a week for winding up for days of 10 hours, and extra overtime. Now they are working from 6 to 6. In the winter they work till 9 or 10 p.m. sometimes ; those, that do so, come at 8 in the morning ; there are four winding machines, and three of the girls will work overtime, and I and the big lad take the fourth machine with our other work so as to relieve one of them in turns. There has been no absence in the four years I have been here from any illness caused by emerald green or other work. I have often thought that I should have great difficulty in getting girls at any particular time, but when the time came I have always succeeded in finding some.

Margaret Waters, winding-up girl.—Am 12 ; don't go to school now ; was for two years in a factory.

[Reads well.]

John Holder, brushing boy.—Am 13 ; was in a factory at nine years old. Began this a fortnight since. The French chalk dust does me no harm.

[Reads well.]

Jeffery Jolly, brushing boy.—Am nearly 16. Began teering at 10. Have not been to school for the last six months. Had no clothes fit to go in. The French chalk has made me sick many a time getting down my throat. I have been here a year and a quarter, and have been absent two days through it. Several boys at Potter's were bad with it for some weeks a year ago.

[Reads a little.]

Joseph Taylor, block printer.—I have trained four or five children to teer and flock for me during the four years I have been here, and they all go off to the factories, so I now have my own three children, the eldest, the girl, is 12, and the youngest, the boy, is 7, the other girl is 10 ; they have never had any schooling. The shops here are much more regular than in the London trade.

[I examined several other children, some of whom could read a little and some not at all.]

At MESSRS. COOKE AND CO.'S WORKS, CLAY PIT LANE, LEEDS, June 1862.

Leeds.

Mr. Cooke.—I am the proprietor of these works. The chief of our business is block printing. We have about 27 tables now in work ; we have also steam power which moves three printing machines, three grounding, two brushing, and three winding machines, but these are not now all at work. By far the greater number of children employed here are in the hand printing portion of our business. We have altogether 44 children, none of whom are under 10, and 26 young persons, and only 12 of the former and 9 of the latter are employed in connexion with the machines. In winter the number of boys employed in block printing would be 15 or 20 more than at present, but those at the machines would be the same as now. Our hours for work throughout the place for both classes of work are from 6 a.m. to 6 p.m., with half an hour for breakfast and an hour for dinner. On Saturday we leave off at 2 p.m. During the last two years we have worked for four months in the year until 8 p.m., then they have half an hour for tea allowed. That was during our busy season, from September to February. Our machines stop for the meal times ; occasionally five or six boys may have to work through a portion of the meal times. When we were working generally till 8 p.m. last year, we tried working the machines on through the meal times, and leaving off with them at 6, so as to make the hour and a half extra time between 6 and 6, but it did not do so well as working till 8 and stopping for meals. It was only an hour and a half in either case, because when we worked till 8 they had half an hour at 6 for tea. When the bell rings for meals we always send the men off ; the boys, that do not go home, either have their meals in the yard or in a covered place, where there is a stove in the winter time, and seats for them. We let none stay in the shops ; they would be sure to do some damage if we did. There is certainly a perceptible difference in boys teering ; it consists in the mode of laying the colour on the sieve, and the result of having two boys following each other by turns to teer for the same pattern would be, that one piece when printed would look fuller and heavier in colour than another ; and that would be sure to show, when the paper was hung on the walls of a room, if not before. When we have to find fault with the men for not printing the pattern of uniform thickness, the general excuse is that they had just then to change their teerer. I am not sure that it would not be better for us, if we had none under 13 ; that would be the result probably of making relays compulsory. As it is, each block printer with us has two boys, one to teer and one to hang up, and then we should have one bigger one to do the work of both.

Paper Stainers.
Leeds.
Mr. H.W. Lord.

Our boys never have much education; they come or their parents bring them to us, because they can work full time. I believe many would be allowed to run about the streets rather than work half time; at all events with us the parents have to make them tolerably decent before we will let them work here, and they would not think it worth their while to do so for half the pay. We have several times, when they first came very ragged, sent them to get clothes, and have deducted a part of the cost from their wages, and paid the rest ourselves. It is a dirty kind of work, so that respectable people don't send their children; a great many of ours are from the lowest Irish on the other side of the town. At 14 or so they generally leave us for something else, and I believe they are certainly the better for having been here. It gives them some degree of regular habits and a kind of good character from having been in our place for some time, and they go either into a factory or as apprentices to some trade. We never allow the men to discharge them, though they hire them. They don't want for food. I found once a large bag full of the refuse pieces of their meals, good white bread, which one of the lads here had collected from the yard and feeding place, and was going to sell. I did not allow that to be continued. We have only two girls here; they are over 18 years of age; they wind up; I don't like having any.

As to overtime I don't think there would be much harm if no overtime was allowed at all. There must be put a limit somewhere on the work we undertake, and if we are pressed with orders, we must either put on a few more tables, or go through our books and get rid of some bad customers, and that would not do us any harm. There is not much good got out of overtime work to my mind. If the men knew they must finish off by a certain time, they would manage to do it. We can calculate to a nicety the time a given number of pieces will take, and a man would either work a little faster in the time he had, or not attempt more than he knew he could get through. The case of a man having a few pieces at the end of the day to finish for metalling would be quite exceptional.

I think bronzing is about the worst kind of work, but the boys are not near when that is done, and it is not often done now, with us each man bronzes his own work. Our emerald green is peculiar, it comes from one particular place in London, it is much finer and softer even to the touch, less granular, that is, than the ordinary Scheele's green, of which this is a specimen; it does occasionally vary in quality, but as a general rule, if ever we have to get some from anywhere else, our men know by the strong smell directly they open the cask that it "wont work," as they say; that is, that it will be loose and fly. It is not the acetic acid being insufficiently washed out that causes that; I once had some green reground and washed four times over, and it was no better. Brushing emerald greens by machine must be very bad; I would not put any one to such work; it would kill them in a week, if it were at all loose, as it will be if the colour is not well made and wont bind with the size; even with the plain French chalk we have had until lately to change the men continually; I have since contrived a chimney with a thorough draught, that carries off most of the dust; before that this room used to be intolerable.

None of the boys are allowed to touch our machines for any purpose. In the Draft Bill for the regulation of our trade there is a clause upon which I have had a good deal of correspondence with different persons interested in the matter. As it originally stood it comprehended all works alike, both those in which printing was by hand and those in which it was by machine, the words being "whether such processes "or any of them shall or shall not be carried on by "means of steam power," and that I think was fair enough, but that was afterwards altered to "where "such processes or any of them shall be carried on "by means of steam power," the effect of that alteration would be that wherever, say, one grounding machine was worked by steam, or to put a more likely instance, where, as in our case, they had two or three printing machines only, but did by far the most important of their work by hand, they would be under the Act, if they only happened to have both the block tables and the machines within the same block of buildings, "curtilage" is the word used in the Bill, I think; but if the two sets were separated by the mere width of a street, the hand workers might go on night and day upon the papers which had been grounded by machinery over the road; and the injurious result of that would be that the system of garret working, as it is called in London I believe,* giving out machine grounded papers, that is, to be printed cheap by hand in small works, or taken by the workmen to their own homes, would be very much increased; that would of course be wholly beyond the reach of legislation, while it is in such places that, from the irregularity of the orders, perhaps as much overtime is worked when they are working at all as anywhere. It would also be manifestly unfair for those like us, who have built spacious premises in order to accommodate both sets of workmen, to have either to remove our block tables, or to submit to the limitation of our day's work, while competing with others who are under no such limitation.

It has been said that hand labour cannot rival steam power and must become obsolete; that may be generally true, but so far as our trade is concerned, although machines can print a very good ordinary paper, up to this time there have been repeated failures in all attempts to supersede handwork for the superior class of drawing-room papers and such like; there is no contrivance by which such a paper when once printed can be registered or passed a second time through the machine; it cannot be made to go exactly even, and of course the least deviation will spoil it; for metalling and all such processes the machine as yet affords no help, and in my opinion it never will.

And this all becomes very important when it is remembered, that by far the greatest number of boys under 13, who are employed in paper staining throughout the country, are engaged in connexion with handwork rather than machines.

[The statements of Mr. Cooke I found in every instance confirmed by those of the men and children in his employ whom I examined; the premises are newly built and are admirably arranged and kept for purposes of health; cleanliness and ventilation being especially aimed at, and with success.]

Manchester.

At MESSRS. LIGHTBOWN AND ASPINALL'S WORKS, PENDLETON, MANCHESTER, June 1862.

Eli Riley.—I am the foreman of these works. Have been here eight years. Was a machine printer before I became foreman. Before that I was a calico-block printer. Here we have four printing machines, two padding and one brushing machines, and four for winding up.

We have no females here. We determined when I first began not to take any. If we don't have any, their morals can't be corrupted; I don't know how they manage in other houses, but we thought it safer without them.

We have 12 boys under 13, 16 between 13 and 18, and 36 adults. For 8 months in the year our usual hours of work are from 6 a.m. to 9 p.m.; for

* Mr. Cooke appears to be under a misapprehension as to the prevalence of the "garret system" in London; *see* Mr. Kendrick's evidence, p. 26, which my own inquiries there lead me to believe to be correct.—H.W.L.

Paper Stainers.
Manchester.
Mr. H. W. Lord.

2 months, from 6 a.m. to 6 p.m.; and for the other 2, from 6 a.m. till 4½ p.m. Fifteen minutes are allowed for each meal; but the machines are working through that. They have to be looked after, but the men and boys will sit down and take it easier. Ours is all machine work. Roper over the way does all our hand work for us.

The boys here are very merry. We have two spare boys who relieve the others, so that they can go out into the yard for a time and get their meals. If the factory half-time regulations come in, we shall get rid of all under 13, and the effect of the preventing those between 13 and 18 from working overtime will be to require more machinery to be laid down, and more hands to be employed for a time, and they, when not employed, that is, out of the season for some four months, will just go adrift, for ours is essentially a season trade, and any work that is not in the time of that season is a dead loss. The adults of course would work overtime, as they do now. In the calico printing, after that Act passed, the adults did night work as much as before, and so it is in the cotton mills.

Only one of those under 13 is in the printing machine room; four are employed in winding up, and four in piling up what the other four wind up. They get 3*s.* 6*d.* or 4*s.* a week, and are not at work more than 9 or 10 hours; the others are working 13 or 14 hours in the busy season. Our rooms are better ventilated than some; but to-day is cool. They are hot enough on a hot day.

The brushing boy does not stop for more than two hours at a time in that room; he is often assisting in other parts. We scarcely ever use it to brush greens. Indeed we do not often brush our greens, and do them when we do by hand.

The children don't go to school, except the Sunday school, generally speaking.

—— *Hassall*, colour-maker.—The arsenic affects me more than some; irritates in the nostrils and lips, and in the privates. I have been once or twice absent for two days with illness from it; so has the other man who works with me; it makes me very bilious; it is particularly bad when the acid used in making it is not properly got rid of; the smell is horrible then sometimes. I have always been to a doctor. I don't know what he gave me; he is homœopathic.

Thomas Robinson, brushing boy.—I am 14. Have been for the last 6 months at the brushing machine. The dust of French chalk gives me pains of my stomach and hurts my chest. I have brushed greens several times, but did not find myself worse than when I was brushing other colours. I go to Sunday school, and used to go to a day school before I worked here. I can't read.

At Messrs. Johntrumble and Co.'s Works, York Street, Leeds, June 1862.

Leeds.

Alexander Bingham.—I am the foreman of these works. We have 26 block tables at work, and three printing machines; there are also three grounding, four winding or rolling up, and two embossing machines. Hand printing is our chief business. The usual hours are from 6 a.m. to 6 p.m., with half an hour for breakfast and an hour for dinner. On Saturday we leave off at 2. Sometimes we work till 8 p.m., but very seldom, not a dozen times a year. Since last Christmas we have been changing some of our grounding machines from one room to another, and have therefore had to work a little overtime at them to keep the printing machines and tables properly supplied.

Lately we have tried working our machines from 7 to 5½ without stopping for meals, instead of from 6 to 6 with the 1½ hours. This was done at the request of the men who preferred their 10½ hours work all at once without any break. It makes no difference to us.

We have 40 children under 13, and 23 young persons under 18; our youngest two are between 9 and 10; only three are girls and they are over 13. Three under 13 work at machines and six over 13 and under 18. The rest of the children and young persons are all employed in the hand work. All ours, both men and boys, are day workers, work by time that is, and not by piece, and are paid by ourselves. I don't think any of the men, who are steady and regular, prefer piece-work and paying their own boys; while for the boys themselves it is certainly much better to be paid by us.

We have a sick fund here, and since Christmas we have not had to pay anything out for illness. Only the men belong; but the boys too are very healthy. The boys ought not to go ever into the heated flues where the paper is dried; we do not allow it.

I don't think we could possibly work with relays at hand printing. The patterns would be different in look on the wall if the colour were thicker in one part than in another, and no two would be alike. As it is, Mr. Trumble wants to have bigger boys over 13 with higher wages, and one to do the work of the two who now hang and teer up for each hand printer.

Our slack time is from August to November. The night schools always are open in winter, but are shut now. There is plenty of opportunity for schooling in Leeds if the boys choose to go. I try to make our boys here keep tolerably clean and decent; I think they are better than in many other places.

We don't often make emerald green paper now, and still less often brush for satins what we do. If it were damp, the brush might get it off the paper, and then the piece would be spoilt, but that would not cause a dust. I never knew of any coming off if the colour were dry. Certainly if the green did come off so and mix with the dust of the chalk it would make it much worse and be dangerous. For satining the emerald green is mixed with satin white, and the grounding machine puts those two colours so mixed on to the plain paper. That alone gives a sort of polished surface to the piece; then the French chalk is added, when it comes to be brushed in the machine, to make it slip under the brush instead of catching, as it might possibly if it were not for that. I think bronzing is worse than emerald green, but I have never heard of any really serious effects of either.

Daniel Holmes, block printer.—I have been doing bronze work for the last 3 years, and have been 20 years in the trade. Bronzing never hurts me, but it does others. That boy has teered for me ever since I have worked here, and he has never been away for a day through illness. We have not, I should say, made a day's work overtime since last Christmas.

William Budd, grounding machine worker.—I have been here 25 years. Now we very seldom do any overtime in any part of the works. At this machine we have worked till 8 p.m. perhaps half a dozen times since Christmas. Mr Trumble does not like overtime.

Joseph Constadine, block printer.—I have printed for 3 years. Sometimes I have had to print with one shade of emerald green upon a piece grounded with another shade. That has made me bad. I could'nt work so well. Besides the nostrils being sore and that, I felt lazy and my stomach was oppressed; still it has never kept me away from work, and I have very good health generally. It is seldom that we do much in emerald green now.

—— *Butcher*, brushing machine worker.—I am 18 and have worked 3 years at this machine. The French chalk dust is bad, but when it is brushing greens it is much worse. I can feel the difference; it feels heavier on my stomach. I have been away for a fortnight from illness in those 3 years at different times. I believe it was the green as caused it.

Paper Stainers. Leeds. Mr. H. W. Lord.

The longest time I was away together was with the measles. I don't know now long I was then away. I suppose the green had not much to do with that.

[I examined a number of the boys and some other men employed at Mr Trumble's and found that they confirmed the evidence of his foreman, Mr. Bingham. The extent of the boys' reading was very limited. The majority of them had been only to Sunday school, and many not even to that. The premises were admirably clean, and the children, although ragged, were less dirty than in most paper-staining works.]

Blackburn.

At MESSRS. WALKDEN AND DIXON'S WORKS, BLACKBURN, May 1862.

James Dixon.—I am the managing partner of the firm. We have four printing machines and four block tables ; the latter are of course hand-worked, and the men are paid by the piece and hire their own teerers ; it is among them that the youngest children are to be found ; two are as young as 8 years old. 8 p.m. is the latest hour to which they ever stay, and they have regular meal times ; so have the five who are employed on the winding up machines, and who also leave work earlier. There are three boys, too, engaged in packing; they work less time and have their meal hours ; it is only the boys in the printing machine room, that have to get their meals without stopping work, and work on in winter to 10 p.m. sometimes.

We have 18 children, three being females ; and 16 between 13 and 18 years of age, one of them is a girl : our adults are 35 in number and of them also only one is a woman. For my own part I think 12 hours long enough for any one, man or boy, to have to work. The average earning of a child here is 5*s.* a week ; and if they go as tenters in a cotton mill, they will get 5*s.* to begin with and a rise of 3*d.* or so every three months, so that, when the mills are working full time, boys are hard to get. If we were put under the Factory Act, we should probably get all the work done by persons over 13, and though we should have to pay a little more, our work would be done better. The regulation of young persons up to 18 not working overtime would do very well for us, if it were compulsory so as to affect the whole trade equally.

As it is, we are obliged to have one or two spare boys knocking about at odd jobs, whom we pay 4*s.* a week, so that we may not have to stop working a machine, when the boy belonging to it chooses to go off without notice, as does happen often enough in spite of our regulations stuck up there forbidding it.

They don't get much education ; most can't read, and those that can read at all well have all been half-timers in a factory, and had to go to school then.

[This statement in reference to education I tested both in these and other similar works, by questioning several of the children and getting them to try to read easy pieces of good print; and I found it to be correct in this case and very generally applicable.—H.W.L.]

Manchester.

At MESSRS. MITCHELL AND HAMMOND'S WORKS, ANCOATS HOLLOW, MANCHESTER, June 1862.

Mr. Mitchell.—I am a partner in the firm. Ours is nearly all hand printing ; we have 17 tables. The men work by the piece, and hire their own boys ; each of the printers has two boys, one to teer and one to hang up, whom they pay 2*s.* 6*d.* or 3*s.* a week each. We have machines as well, worked by steam, one for embossing, one calendering, two padding ; we have also one small printing machine, that is not working now ; we only use it sometimes for the better class of machine papers. We have no females here ; we don't like their mixing with the boys and men as teerers, and we don't wind up by steam worked machines, so we could not use them for that. We have 30 boys here under 13, and 20 between that and 18 ; our number of adults is . Our usual hours are from 6 to 6, with half an hour for breakfast and an hour for dinner, and we stop on Saturday at 2 ; so we make 60½ hours a week ; that is what we are now working. In the spring for three months or more, which is our busy season, we work from 6 to 8 and sometimes 10 at night, then they have half an hour for tea ; the half hours are very generally three-quarters, as the men have it in their own hands, being piece-workers ; that is, the printers. The boys must be working as long as the men ; they are essential : if a man had to print and teer and hang up all for himself, he would not get through one third of the work. It would be very difficult for us to go on under the regulations of the Factory Act. We can never give any stated number of hours during which we shall be working in a particular week ; it all depends on our orders. We can't work stock, as the machine printers can ; we have tried several times, and have had to sell at about half its price, less than cost to ourselves. We send out our patterns to the retail trade, and the retailers dare not show old patterns to their customers ; then they send us an order for so many pieces to be finished by a certain time, say to have a house got ready for occupation by an in-coming tenant ; these orders all come in within a few months in the spring, and we must get them done in the time or they are countermanded. We lose orders quite enough as it is in that way ; so we must work overtime in that part of the year ; and then we could perhaps divide ourselves so as to work by relays ; but at other times, say from now, June, to October, we shall work one day six hours, and another eight hours, 10 the most, and those we could not divide. I think we might manage with some arrangement like that under the Print Works Act, giving the children so many hours of school in every three or six months, for they have plenty of spare time and they do want education, but their parents will only give it them when they are forced, for as it is they might go most of the year to night schools.

There is a great difference as to overtime between hand and machine work; in the latter an adult might very well stay for the overtime and do the boy's work, and the number of pieces which the machine prints in the day would make the excess of wage for a grown man's labour beyond that of a child scarcely perceptible; they will print from 1,000 to 2,000 pieces a day ; but a hand-worker never at most gets through more than 60 or 70 pieces in the day and often only 35 or 40, and with heavy colours and flocks frequently under 20 ; so that the extra wage, being, in his case, spread over a smaller extent of produce, would be felt at once.

Often too an extra hour's work saves a day's delay ; if a man is metalling for instance, and has to do so many pieces for an order, it often happens that at the ordinary closing time he will have perhaps three or four more pieces to do to finish the printing for the whole order ; if he does them in overtime, he can go through the subsequent processes, which remain to be done, the laying on the metal in this case, in the next day ; but, if he has to print those three or four pieces the next day, they will not have dried sufficiently during the day to admit of his metalling them, though the rest which had the night to dry in, are all completed, and for want of the extra hour, the day is thrown away.

As to the effect of brushing the greens, I don't see how any of the arsenic could be detached without the

paper being spoilt; before the plain unglazed green paper comes into contact with the brushes the French chalk is spread over it by the hand or from a hollow roller, as in this machine; the very object of the chalk is to prevent the ground being brushed off; to make the brush slip over the paper: I remember some time since a firm starting a brushing machine for the first time; they did not know that the chalk was wanted, and went on without it, so all the colour was brushed off the piece; they blamed the machine, but soon found out that the fault was their own. Paper Stainers. Manchester. Mr. H.W. Lord.

—— *Bagster.*—I look after this room when the brushing and grinding machines are working. I never observed any difference, whether it was emerald green or any other paper that we were brushing, nor have I ever heard the boys complain; certainly none have been absent from illness in consequence. Five boys work here, and they work the longest hours of any; in the farther end of the room, where the hot air pipes are, to dry the paper that is hung up from the padding machine, it is very hot; there is a strong smell often of the arsenic there, when we have been grounding with the emerald green; but the effect of that has never got beyond the irritation of the nostrils and lips that you have heard of; it is like a kind of influenza.

William Herring, in grounding-room.—Am 11; have been here six months; we work now from 6 to 6; three months ago I worked in this room as late as 10 and half-past, for several months.

George Wood, teerer.—Am 10; work now from 6 to 6, two months since till 9, never later than that; have been half-timer in a factory; can read.

Daniel Mac Cann, teerer.—Am 11; have worked just as Wood has; can't read.

Richard Hemsbrough, block printer.—Was bound apprentice at 10 and have worked 49 years at it. When I was a teering boy I often worked from 5 a.m. to 9 at night, now and then all night through. They seldom work over 12 hours now, and have their 1½ hours for meals out of that. For three or four months in the year we work till 8 or 9 at night now; when we are so late as 9 we let the children come an hour later next morning. I don't like girls and boys teering together. I wouldn't hire a girl to teer for me and wouldn't let one of mine come.

At MR. ROPER'S, PENDLETON, June 1862. Pendleton.

Henry Roper, proprietor.—I am 30; have been five years in business for myself, worked before as an apprentice. I have nine tables, no machinery; Messrs. Lightbourn send all their hand work to me to do for them. 6 to 6 are our longest hours now, and for half the year we don't make four days work in the week; two years ago we were working till 8 p.m. for about three months, but then I had only four tables; we don't work till 8 half a dozen times in the year. The boys only get about 2*s.* 6*d.* a head for teering and hanging up, and there are two to each table; five years ago they used to pay 5*s.*, but then there was only one to do both and he was older. Our men are very irregular; one I had, worked a week and drank a week alternately for 10 weeks and then I sent him off. It is a regular thing with them to take the Monday as a holiday, but I don't let them work overtime to make it up, they are paid by the piece. The children are very ignorant; it would be a good thing to make them go to school.

At MR. C. THORP'S WORKS, RILEY STREET, BERMONDSEY, May 1862. London.

Mr. Charles Thorp, proprietor.—I do both machine and hand printing. There are 93 persons in all employed on these works, 23 are under 13, of whom only two are not connected with machine work; none are under 10; between 13 and 18 there are 34, and of them all but five are machine workers. We have eight machines, counting grounding machines. Our usual hours are from half-past 6 a.m. to 7 p.m., and on Friday we leave at 2 p.m. We don't work two hours overtime in the 12 months. The machine men have only half an hour allowed for their dinner, their other meals they get as they can at work; the others have the usual two hours.

I have nothing to alter in the evidence you have read to me;* it shows everything very fairly. We cannot get on without boys under 13, for they won't stop for the low wages when they get much over 13, and we can't pay more than we do for this sort of work. The bigger boys get 7*s.* and 8*s.* a week, the smallest about 3*s.* Those who roll up by machine get 4*s.* a week for so many pieces a day, and extra for any more, so that a boy that does his work quickly will get 6*s.* a week at that, but none would come if they could earn only half what they earn now.

I think our boys are tolerably well fed and cared for by their parents. I often see their mothers bring them their meals. We should not take in the very ragged and lowest lot; they would not be safe; they would be pilfering, I mean.

It is very likely that drying machine-made paper over hot plates may tend to make the size less binding; that would be still more so, where they are passed through hot stoves; still you don't find the dust shake out of our papers, and no one complains of any injury from making the emerald green papers, either printing or rolling up, among us here. Most of my men have been a long time with us; have grown up here.

—— *Sparkes*, foreman and engineer.—There are five printing machines in this room worked by steam; four of them have their drying plates here; the fifth, the large one for 16 colours, works up into the next floor. Only two are now at work; there is a man at each machine; he always oils it between 1 and half-past 1, the dinner time. There are five boys attached to each machine of eight colours, three of them have nothing to do with the machine at all, for they are at the further end of the drying plates "pulling down" the paper and "chopping off." "Pulling down" is passing the printed paper along and off from the plates. "Chopping off" is cutting it into lengths of 12 yards as it comes from the hands of the "pulling down" boy. The two other boys have to keep the colour boxes supplied with colour from a pail by their side; that is all they have to do. Now and then the man will tell them to turn a screw there in order to keep the endless felt even on the rollers; that is the most. Of course they are close to the machine, but no accident could happen to them. I never heard of any serious one; the worst I ever did know was when a boy put his fingers between two toothed wheels; that was from curiosity, and another boy who was at the machine told him it would not hurt; his finger was badly torn, but nothing like an arm or leg being broken ever took place. Almost all the straps are overhead out of the way, and the few that are not hang so loose on the wheel that they would come off if anything caught in them that gave resistance. The machines can be stopped in a moment.

In this room the only meal time allowed is half an hour for dinner, but the boys have plenty of breaks in the day besides that, and during some of them they get their breakfast and tea. In the first place, whenever a roll is finished, they have from five minutes to a quarter of an hour while the next roll is being got ready and put on, the man does that; the one you just saw took only five minutes, because that is a new sort of roll, fitted with a roller, but the old sort, which are more

* This was the whole of the evidence taken at Mr. Thorp's works, with the exception of his own.

Paper Stainers.
London.
Mr. H.W. Lord.

generally used, are not so fitted, and the man has to work a roller by force into the centre of the roll, and that takes some time. The roll generally has 960 yards, and that takes about an hour to print, so you may say that they have some 10 minutes rest for each hour of work. Then if the pattern is done and has to be changed, that takes from two to four hours; the colour boxes and the felts have to be all taken off and washed out. We seldom use the same felt for two colours. The time it takes depends on how many colours we have to change. If we had to change all the colours of an eight colours print it would take about three hours before the printing began again. The boys would then have to wash the felts and boxes, but they must have plenty of time after that while the man is getting the machine into working trim. On the average they do about two reams, and then have to change; that will be, as six rolls of 960 yards go to the ream, about some eight or nine hours' work, exclusive of stoppages, so that every other day at all events that rest will come, and generally oftener. The machine starts at about a quarter to 8 a.m., and leaves off at about 5 p.m., then they wash it out. We stop for the dinner half hours. So far as any waste or damage merely goes, it does no more harm to stop an hour than five minutes; about a yard of paper between the two last rollers is spoilt, that is all. The boys are quite independent enough; if they lose a single day's work they will hardly come. That big 16 colour machine is stopped now, and we shall have to give the boys who belong to it some allowance to keep them here.

William Walker, machine printer.—I was 9 or 10 years old when I began in this machine work, and for 16 years have always been at it. I never lost a day from sickness since I began. The boys can't well get tired, all they have to do is to walk up and down, those at the end there, and these to feed the boxes; they can judge of the time in which the boxes will want more colour, and just sit down and watch till then. Sometimes a colour box will not want supplying more than twice or three times a day. When we change patterns it takes best part of an hour to get the machine to run properly before the printing can begin or the boys be wanted, and the washing takes a good hour before that.

—— *Jay*, rolling machine boy.—I am 12; was 10½ when I began, and at school for three years before that. Can't read. Am never ill. Go to play after leaving off here; am never too tired for that. That boy gives me a piece of paper and I put it on to this steel rod, then the strap turns it, and I take off each length as it is done and he lays it down.

—— *Coffey*, satiner.—Am 14. Have been at this work four months; was here at other work before that. This cloud of white dust is French chalk, it gets down my throat and hurts my chest a good deal; sometimes I can hardly breathe; it makes my eyes smart too; half an hour ago I could scarcely see. I don't feel any bad effects when I go home; it goes off as soon as I leave off work and get away.

Shirley Brooks, clerk in counting house.—I have only been here 12 months, but I am about from morning till night in the warehouse and factory, and take a great interest in the whole concern. Relays would not do for us because the boys would not come for half-pay; as it is, if they don't like anything, they run off to the biscuit works close by; and in the hopping season a lot of them always go off, just in our busy time. We have five or six block tables besides our machines. They pay their own boys and have two hours for meals, so do those in the marbling room; and in the grounding and satining rooms they have two hours for meals; in fact everywhere but in the printing machine room. Some of the boys go to school. One there has had a prize for his regular service for four years here, I know, for we have had to give a certificate to him. Most of our papers are rolled up by machine in the upper room; the boys look to that and see that the paper does not kink, and take the rolls off the rods. Some of the better class papers they roll by hand. We make our own colours here, the man who does that does not suffer from it. We grind all our colours wet.

Emerald green does not form a dust on machine printed papers, which can be rubbed off or shaken out, unless the size be bad or insufficient. We use size; often gum as well. Licking, however, will take the green off; not mere moisture, but moisture combined with rubbing.

They all have a day or two holidays at Easter and at Whitsuntide and also a summer excursion annually.

One of our men now working is over 60, and several are past 50. They all, boys and men, seem healthy enough. They generally get out of the place for their dinner; most of them live about here.

—— *Boswell*, colour maker.—Two men help me. No boys are here. We don't suffer from making the colours, not even the emerald green; that consists of five parts of arsenic to eight of sulphate of copper and eight of soda; we add acetic acid to get rid of the soda, after the arsenic and copper have combined. We always keep our colours wet; the danger is in the dust. At the colour manufactories they have to dry and sift the green, and it is from the dust of that process that the harm comes. We have nothing of that here.

At MESSRS. ALLAN AND CO.'S WORKS, OLD FORD, May 1862.

John Charles Allan.—I am one of the firm of Allan and Co., and have worked myself at staining papers. We have nine boys here under 13, the youngest two are between 9 and 10. There are 33 between 13 and 18, and 28 adults. Our usual hours are from 7 a.m. to 7 p.m., and for perhaps three months some work till 9 p.m. The most overtime any man makes is eight hours in the week. Ours is chiefly machine printed paper. We allow two hours for meals, except in the machine printing, where they have only half an hour for dinner instead of the hour; and the rolling on boys get their meals while the machine is working; for them there is no fixed time for meals.

As to our overtime, this year is an exceptional one; we were out of stock, and waited last year for the alteration in the paper duty, and are now pressed to make up our arrears. Ours is a season trade, and January and February are very busy months, then we ordinarily work till 9 p.m. from 7 a.m.; but children are not usually employed overtime, for that is machine work, and there are only two under 13 there. The block printers with whom the younger boys are don't begin before 9 a.m. In winter the gas is turned off at 9 p.m. The "rolling on" boys can always get relief, and generally do, by getting one of the "catching up"* boys from the printing machine room to take their place while they eat their dinner or leave their place for other purposes; that is why we have two boys at each catching up, that one may be spared. That machine, at which they roll on, cannot stop; if we dried too quickly, we should destroy the fabric of the paper; the papers in the drying tubes would be scorched, and possibly be dangerous; we should have to run very slowly, if we slacked the fires, to get the heat back. I think it is all fancy, that one boy's teering would be so different from another's as to cause a marked difference in the same piece. But I see no reason why we should suffer if it came to this, that children would not come for half-time and half-pay, and so young persons over 13 were employed; the men certainly might have to pay them 6*d.* or 1*s.* more. One reason for the boys preferring the machine

* "Catching up" is the same as "plaiting down"; *see* Mr. Preston's evidence, p. 123 *supra*, and George Barret, p. 133 *infrà*.—H.W.L.

225

Paper Stainers.

London.

Mr. H. W. Lord.

is that their pay is safer, but if I knew of any man not paying his boy I would not keep him. We do want the overtime of the young persons for the winter, for our customers have to be supplied in the winter, and our patterns don't go on their journey till late in summer. There is a great deal of monotony about the machine work, the boys can scarcely keep awake towards 9 p.m.

Edward Willis, block printer.—I am 24. Began teering at 13. This is the only room where block printing goes on here, the rest is all steam machinery. In this room our time through summer is 7 a.m. to 8 p.m. I don't get here till 9. My boy is 13 ; he has been five months at it. Children ought not to teer before 10 or 11, they are not strong enough. One boy does not teer like another ; if two came on while I was at the same piece, one after the other, the piece would vary. Boys are more harm than good for the first fortnight. If children had to work half-time, we should try boys over 13, but they would want more pay.

Thomas Wright, teerer.—Am over 13. Used to be in the engine room ; liked that better than teering as I am doing now ; it is easier work, though you are kept closer to it. We were from 7 a.m. to 9 p.m. there, but then we earned more ; used to have half an hour for dinner, no other meal time.

Joseph Pearson, block printer.—Was under 9 when I began in Leeds in 1824. In this shop our hours are 7 to 7. In winter we work overtime till 9. We leave off at 4 on Saturdays. Evening schools are close by ; the boys could go if they chose. A boy of 14 or 15 would not be so useful to a block printer as one under 13, he would not be so nimble. No one ought to be allowed to work at this more than 12 hours, with 1½ hours for meals.

George Barret, machine printer.—Am 21. Have been at it 10 years, for the last four at a machine worked by steam. This is the printing room ; there are nine boys here, they have to "catch up," that is, to lay with a stick the printed piece in lengths or folds as it comes off the rollers. Our time is 7 to 7 now. In winter we work till 9, that is from about October to the end of April. On Saturdays we always leave at 4½. Have half an hour for dinner ; some of them work all the meal times. The youngest in this room is about 11. There is no reason, in the sort of work the boys here have to do, why they should not work half-time by relays. Their pay averages 5*s.* a week, 1*d.* or 1½*d.* an hour overtime. They have nothing to do with the oiling or anything else of the machinery. I never heard of any accident* to any of them. It is sometimes so hot here that you can scarcely breathe. They have not much time for school.

Joseph Henry Ellis, rolling-up boy.—Am 14. Began this work at 11. This is the rolling and finishing and also the stock room. We have to cut the long pieces from the printing machine into 12-yard lengths, as they are rolled by this machine, and to watch against kinks and keep it smooth. Our hours are 7 to 7, and for about five months before Easter to 9. On Saturday we are paid at 5½; on Monday we leave at 6½. That green dust on the ledge in front of me is emerald green, arsenic that is, out of the paper I am now rolling. I have been at that all the morning, and shall be probably all day, but I daresay I shall have no more all the week ; we seldom have two days in the week at that colour. It affects my throat a little, and round my mouth after I have been some time at it, but that never lasts. I go to school sometimes from 8 to 9½ of a night. Can read. By the time we get home and have supper we are generally more ready for bed than school. We sometimes work through half an hour of the dinner time, and get paid overtime for it ; last winter through the tea and breakfast half hour. There are eight boys here, the youngest is 13 ; they earn on an average 6*s.* a week. The room is very hot when we can have no air ; the room underneath, where the drying by steam is done, makes it so.

Thomas Horsey, rolling-on boy.—Am 14. Have been in the trade three years. Can read a little, but have forgotten writing. Am a "rolling on" boy, there are two others. We have to sit here underneath where the grounded paper passes into the drying tubes, and keep it smooth upon the roller round which it comes when it returns. We are always here, have no meal times ; eat as we sit ; the engine is always going. The heat is stifling sometimes. Our time is 7 to 7, and to 9 in winter. We get 5*s.* a week.

At Messrs. Jeffrey and Co.'s Works, Kent and Essex Yard, Whitechapel, April 1862.

Mr. Alfred Brown.—I am a partner in the firm of Jeffrey and Co. Our business consists chiefly in the better class of hand printed papers, in which we do a considerable trade. Our total number here is 75 ; none are females, no London house employs any that I ever heard of ; 14 are children and 25 young persons between 13 and 18 ; 9 or 10 of them have to do with the machinery ; the rest are hand-workers : we have one between 8 and 9 years of age, and one between 9 and 10, they are the youngest. Our usual hours are from 8 a.m. to 8 p.m., occasionally we work as late as 10 p.m. that is chiefly in the machine room. We have two printing and two grounding machines, but only one of each kind is working now.

An hour and a half are allowed for meals ; one hour from 1 to 2 being for dinner, and the half hour for tea, 5 to 5½ ; some of the children breakfast before they come, all the men do ; they have their meals where they like, at home or in the shops or the yard.

We haven't much control over the boys in our place, for nearly all are hired and paid by the men for whom they work ; those men are block-printers and work by the piece, so that they have their own time, and by consequence their boys' too in their own hands ; the boys in the machine rooms are, however, paid by us, both those that work by piece and by time ; but we do comparatively little machine work, that is only for the cheaper papers. I don't think those that are here much want legislative protection, perhaps some of those in the machine room do work too much overtime now and then ; it is very hot there sometimes and fatiguing for the young ones. I should be very glad of any regulation limiting such overtime that would bear equally on all employers ; as it is we must work them so when we are pressed by our customers, or our customers will go elsewhere, where their orders are more quickly executed.

I have never seen this proposed bill before, and do not know anything of it. I don't know much about the provisions of the Factories Acts. I dare say some interference may be needed in the north where most of the work is done by machinery, and the employers work their men to get the most they can out of them ; perhaps some of the smaller manufacturers in our trade in London don't much consider their workpeople.

The boys' work here so far as actual labour goes is very light ; it is confined to teering the sieve with colour brush or roller, rolling, hanging up, and laying down the sheets of paper in their different stages ; now and then fetching blocks and colours up from below to their shops, and cleaning up. They change their position continually, and in no case have they to be in a painful one ; they do not carry heavy weights, nor are they kept to one kind of work exclusively, but generally during the day ring the changes on all which I have just mentioned. All our rooms have windows that open, and there is plenty of space in them to move about, and as in all of them almost

* I was told that one had happened in the past 12 years, and that was to a man and the consequence of his own negligence. —H. W. L.

Paper Stainers.
London.
Mr. H.W. Lord.

drying has to go on, and that must be done, in block printing at all events, gradually, we have to be careful to keep up an average temperature in all the shops, of which the workmen of course get the benefit.

The boys might go to evening school if they liked, there is a ragged school near in Spicer Street, and some, I believe, do go to that. None live far off; but they don't like and their parents don't care. We used to pay a master for them, and tried to make them go by stopping their wages if they did not; that was for two evenings in the week, but we could get no one who could keep order or enforce respect, so we had after several years to give it up.

The only loss in block printing which can arise from stopping for meals is the loss of time: we always stop. I suppose there would be some waste of paper and colour where machinery is used, but I should not have thought it could amount to anything like 1,500*l.* a year even in a very large manufactory.

William Butterworth, block printer.—Am 38 years old; have been at paper-staining work since I was 10. Can read and write. We have a sick fund here; all of us but two are members; I believe our expenses are below the average of sick funds in London trades. In fact we are very healthy. Our meals are regular; breakfast before we come, dinner from 1 to 2, tea from 5 to half-past; some go home to dinner, some have it at a public, some in the shops, just as we like; two or three of us come together into one of the shops and dine there. We get into such a mess at work that we should have to change everything if we went off the premises, and that would be such a bother, so we have it brought to us generally.

I don't think the boys would like to work half time and have the rest for school. Their parents are poor and want their earnings mostly. If they got learning in their heads, they would go short in their bellies.

Henry Macmanus, teerer.—Am 15 years old; began this work six years ago at Erwood's in Goswell Street. I teer and roll and hang up; that is what we boys mostly have to do. This morning my master was about three hours mixing colours; I fetched them for him to mix. He is a block printer; all block printers are paid by piece-work, and pay the boys who help them themselves. Each of them has one boy to help him.

We worked overtime last week, two hours overtime one night, but never more than three or four hours in the week. Just now we have been pressed to get ready for the Exhibition.

I go to school of an evening sometimes; the last time I went was a month ago. I might have gone since that if I had wanted to.

John Rowe, block printer.—Have been at this for 40 years, and have not had a day's illness; but then I have lived a regular life. On Saturday we always leave off at 4 p.m., and never work overtime on that day. That boy is my son; he has been for six years at it, and his health has not suffered. Teering is the boy's chief work; they do it with a brush when water-colour is used, and a roller when there is size or oil, which makes the colour stiffer to lay on the sieve. The roller would not do for water-colours, it would force a settlement; but for the other it is much best, as it keeps the size smooth, which the brush would leave in ridges, and moves easier for the teerer.

Benjamin Rowe, teerer.—Am now 15. Began six years ago. Go to school in the winter more than now; we leave work earlier then, and can't play about on cold nights. It is a ragged-school in Spicer Street, from 8 to 9½, on four nights a week. I was at school for three years, and three-fourths of it was in whacking. Our master, that is Mr. Brown, paid the schooling for 8 or 10 years, father says, but he could not get the boys to keep to it, and he has given it up now.

Samuel Crane, marbler.—Am 41; began at 13. Can read and write. Used to go to Sunday-school. Am a marbler. Was very ill last summer; six months in hospital. It was through the white lead which we use for the white veining getting into my hands. I was in a very hot shop then; it might have been that too. There was a fan for the drying machine below, and the hot air came up through the boards. It is under the roof; it is not generally used. I think some one is there just now. That is my son; he is 13. Has been two years at this. He is rather pale and undergrown, but I don't think it's the work or the place. He has a sluggish liver. He eases me, and I let him take it easy. I have a bigger boy generally besides this to carry water and fetch colours. A marbler is useless without a boy; his boy is as good as himself. My son was two years here before he began at this. As soon as dinner is over, down he goes to play with the rest in the yard. I mostly work from 7 a.m. to 9 p.m., and the boys work all the time. Last night we left off before 8. We shall soon close at 8, and as work slacks we shall leave off at 7. That is towards summer, and it gets hard again after the journeys in late autumn.

The last emerald green knocked us both up. That is arsenic. The commoner the colour,—the cheaper, that is,—the worse for use; it is not properly prepared; the arsenic is not killed in it. I do not feel my throat affected by it, but my nostrils, and wherever there is much friction; my neck, for instance, where my neckerchief rubs, comes out in red pimples. I have to mix my colours thin and stir them up, and so the wash flies over me, but the printers work their emerald green jellied, set with size, that is, so it does not get on to them.

We never stay after the last bell rings, that is 9.45 p.m. for the day workers, the machine men.

Benjamin Hayes, block printer.—Am 45; began at 10. Have gone right through all the stages of work here, and never found any ill effects. Have not been laid up a day with it. Think bronzing, gold size, and flock the most injurious of our work. Had rather work at emerald green than at them. That does affect my throat a little. After all, many a bronzer lives to a good age. Our bell now rings at 8 p.m.; it soon will at 7. I give my boy 5*s.* 6*d.* a week; some get as little as 1*s.* 6*d.*, but they are learners.

Matthew How, block printer.—Am 50. Have worked at metalling and bronzing for 20 years, and am a strong, healthy man. I would not touch emerald green. Never learned to read or write.

Edward John Clarke, block printer.—Am 36; began before I was 10. My son teers for me, and Robertson flocks. My son is 11½, and has been here four months. The work does not affect me nor them. Green flock is quite different from emerald green; that (emerald) is bad, and no mistake. The arsenic flue works off the paper on to the blanket, the cushion, that is, on which it lies. The stuff we use for the flock to stick to is oil and red or white lead and gold size; that is what he is teering.

Some boys come as early as nine years to work. Learners get 1*s.* 6*d.*; my boy 5*s.* 4*d.* 5*s.* is a fair average value.

At some places each printer finishes out his own work from beginning to end, but here we divide the labour; so if there is anything bad one is not so long over it.

Thomas Coltman, flocking boy.—Am 15; have been at flocking four years, and other work two years before that. Used to go to school; don't often now. Am very tired at the end of the day. Only came here yesterday from Thorpe's, where I have been working.

John Butterworth, block printer.—Am 16; began at 10; have been a block printer four months; was a teering boy here before that. Am too tired now to go to school. Was six years at school. Can't earn at piece work yet enough to pay a teerer, so teer for myself. If you are not clean with the emerald green it gets into sores, if you have any. I never suffered from it, though I often used it.

Henry Elmer, block printer.—Am 25; began at 14, so had much more schooling than usual. My

teerer is 14, and can't read or write. Relays would be inconvenient; we should have two to spoil work and be looked after instead of one, and two to teach, and should never know which to blame.

George Taylor, machine grounder.—Am 24; began downstairs 14 years ago; we used to have to go to school and got our wages stopped if we didn't. We don't work late generally; 8 to 7½ are usual hours; sometimes we stay till 8. We have been working overtime for the last two or three months, sometimes till 10. This is the grounding machine room.

That long machine colours the paper and then dries it; I work the colour at this end, and a boy watches the roller at the other. The smaller one is for a better finished paper; the engine that works these, is below, on the basement; it works two printing machines in the room underneath this.

There are five or six boys in this room;* I am the only man, and sometimes find it hard to keep them out of mischief; three of them hang up the sheets to dry or roll them while another is at the roller or helping me; no accident could happen here to them, none ever did.

John Dacey, grounding machine boy.—Am 14; began at 9. Have been to school for two years; will go again when seven o'clock work begins. Can't read or write; can't spell my name.

William Featherston, grounding machine boy.—Am 15½; began at 8. Have always been at machine work. Can't read or write; should like to go to school, but am forced to keep myself, for my father is dead and my mother out in service. This room is very hot in summer and almost as bad in winter, for then it is all closed up.

George Salmon, grounding machine boy.—Am 14. Was at work for a year upstairs marbling, and have been 3½ years at this machine. I am smoothing the paper as it comes on to the roller from the drying machine. It doesn't stop for dinner. I go to dinner at 2, and then Featherstone takes my place; he dines from 1 to 2. Our work is from 8 a.m. to 10 p.m., with 1½ hours for meals. The steam pipes and fan make the room hot. It is hotter than this as the afternoon goes on. Have never been to school; should like to go but can't; for we must work overtime. I get 5*s.* a week and 10*d.* overtime.

James Collett, flocking boy.—Am 13, began at 10. Can read a little; I am now flocking; didn't begin till 11 this morning; my master wasn't here till then; I was here soon after 8, but when I have made the shop ready, I wait for him. I leave off between 8 and 8½ p.m.

Edward Shipley, machine printer.—Am 27; began at 6½. Learnt all I know at the school here of an evening from 8 to 9 for years and at the Sunday school. I manage this printing machine all myself; that is, with the boys to help; there are four of them. I work by the day, but they are paid by the hundred hung up or laid down. I like block printing better than this, there is more anxiety here. These machines work much faster than the one upstairs, and as all our paper for printing has to be first coloured and grounded by that, we sometimes have to wait, and they are always rather pushed to keep up to us.

I believe the parents being poor makes the boys work so young. If a man gets a good teerer, he often gives him an extra 6*d.* The boys are very cheerful. Our machinery here doesn't need fencing; there is nothing projecting to catch one; and we could not work so well if it were fenced. This is cleaned every Monday before the engine starts. I have never heard of but one accident, and that happened to myself; I was in the engine room stretching myself with my apron round my arm, and it caught in the strap above my head, and drew me in, and my arm was broken. It was my own fault.

Each time we stop the engine there is a loss: even changing the roller in the wainscot printing costs perhaps 2*d.* each time in waste of paper and colour. When the machine stops the roller lets the colour out, for our printing is water colour, and so it runs down over the paper beneath; the paper between the rollers too gets dry, so that the pattern does not fit when they go on again. I can understand 1,500*l.* a year being lost in that way.

John Hudson, junior, machine boy.—I am never ill; can read and write and that; some of them don't know a letter from a bull's foot; they might all go to school if they liked of an evening as I do.

John Collahan, engine boy.—Am 17, the only boy in the engine room; the engineer is a man of 30: the engine has been up for about 15 years. I can read and write a little; began this at 14. Leave work usually at 8; now we are working overtime I stay till 10. I also put water to the colours and then grind them in those three mills, and I boil the hides for size. The engine is cleaned every morning, the boiler about every two months. This work doesn't hurt me more than any other would. I am not strong; I believe I am consumptive; my brother died of it.

At MESSRS. WOOLLAMS AND CO'S. WORKS, HIGH STREET, MARYLEBONE, May 1862.

John Rudderforth Jolly.—I am foreman of these works and have been here 16 years. We have eight boys under 13 here, and 23 between 13 and 18; our youngest is more than 10. We have 24 adults. Our usual hours are from 7 a.m. to 7 p.m., but we sometimes go on till 9 or even 10 at night. For about three or four months in the year we work some overtime.

They have two hours for meals which they take either here or at home, half an hour for breakfast, one hour for dinner, and half an hour for tea. That is the lunch bell; they always have it at 11 a.m.; it is a meal peculiar to paper stainers, I think.

I think paper-stainers' boys are, as a class, perhaps about the average of working boys in London. All ours is block-printing. A good boy is absolutely essential to a block-printer. They often give an extra 6*d.* or 1*s.* a week to keep a good one, when they get him, and the boys soon learn their own value; so the men could not afford, if ever they were disposed, to ill-treat them. If the effect of compulsory half time for children were to be, it as would probably be in London, to drive all of them to some other trade, I don't think we should suffer much; but we could not get on with a limitation on young persons confining them to 12 consecutive hours from one fixed time. A provision similar in principle to that of the 11th section of the Bleaching and Dyeing Works Act,* 1860, would suit us better; though in any case an unexpected order frequently requires overtime for its prompt execution, and without their boys the men could do nothing. It might happen that for the first half of a week perhaps we have no work for a block-printer, so during that time his boy can do little or nothing, though, for fear of losing him, the block-printer pays him. Then comes an order which we can give to him, and if he works an hour or two overtime, he may get his full week's average by the Saturday. Still more often his piece of work may want perhaps half an hour to be finished, or the sheets hung up may be just sufficiently tacked, that is, may have the size in the exact condition of moistness requisite for metalling or flocking, at the usual

* *See* the evidence of the next three boys.

* This remark was made under the impression that the section referred to allowed of employment for any 12 consecutive hours between 6 a.m. to 8 p.m. in all cases—H. W. L.

Paper Stainers.
London.
Mr. H. W. Lord.

time of leaving work; but if left till the next morning, the whole would be dry and useless; or he may not have finished up all his colours that he has mixed exactly at the time, and they will not keep till the morning, but will spoil. To avoid overtime we put our plainer satins and grounds out to be done.

The boys used to change about from place to place in the trade and also from one trade to another more than they do now. They have always to wash their teering sieve and brush before dinner; and in doing that get their own hands tolerably clean; but for that they wouldn't wash before eating, and that might be bad with all the stuff they get on to them; but as a matter of fact they are never ill.

Our green flock is a vegetable dye, not arsenic. We had some tested once by a chemist. Our agent offered us a guarantee that it was not. About 10 years ago one of our young printers had his mouth break out very badly after working hard for about two days at emerald green; but we found that, being inexperienced, he had used the colour undersized, so that it would not bind on the paper, but came off in dust, as it dried. We insist on the shops being swept every morning. We have three errand boys; those we pay ourselves 5*s.*, 4*s.*, and 3*s.* 6*d.* a week respectively; they roll up now and then; they go to Sunday-school, but one of them can't read. The man that works our shop for colouring grounds and priming has been away now for four or five days; he caught cold on the river on Easter Sunday, and he can't afford to discharge the two boys who work for him, but has to pay their wages all the same.

The extract which you have read to me from Mr. Thackrah's book* certainly does not apply to the present state of our trade, and I don't think it could ever have been generally applicable. Most of our colours now are in pulp, and those that are not, are always ground wet, so that no one could suffer from the grinding. What is meant by rubbing I don't know. We do not use one-tenth of the white lead we used to; we have a new mordant from Paris instead which does not contain lead. Prussian blue is quite out of use, but I never knew any harm of it. Turpentine we only use for varnish. If any harm could come from the grinding, our boys have nothing to do with it, for we have a man for the purpose; and I think they have at most places. I never heard of any one's sight being affected by the work during the 35 years that I have had to do with the business. They are certainly not particularly short lived. My father lived to 82, but he had left off working some long time. I know of two men who died lately, one at 80 and the other 74; they both kept on at it till over 65. Our men here are very steady. I don't know of more than one who drinks; perhaps we are especially fortunate.

James Parrott, teerer.—Am 14. Began at 10 years old. I leave work at 7 and go to the Grotto Passage Ragged school. Can read and write. Two or three others besides me go there too. Don't get very tired here.

—— *Sampson*, printer.—I have four sons here; they all, and this boy who helps me, go to an evening school near my house. We have not worked more than one night a week overtime, taking the year round. I have been in the trade all my life, and all my family almost, and we have never suffered from it. Paper stainers are not liable to anything like painter's colic in the way of illness. We take a little physic now and then. In flocking, the flock gets down your throat, but it's only uncomfortable, and you can spit it up or wash it down; besides it is not as if we were always flocking; that takes only a part of our time. I think a boy should be 10 at least before he begins; he can't be of any use before. Even a light crutch to lift the paper for hanging up is too much for a boy under 10, not that it would hurt him, but I mean he could not hang properly. A big boy on the other hand gets masterful, and a man working by the piece is very much in the power of his boy. If he had a spite against him, he could drop a piece in hanging, and so spoil the whole of it. A little one would be afraid and would be easier kept in order.

At MESSRS. SCOTT, CUTHBERTSON, AND CO'S. WORKS, WHITELANDS, CHELSEA, April 1862.

Wesley Carter.—I am the cashier at these works and keep the books. Have been here for 10 years. I should think ours is the largest concern in the London trade for the class of goods which we produce, the better sort of block printed hangings. We have no machinery. We have 104 persons in all employed in the manufacture; of those only 10 are under 13; the youngest is between 9 and 10 and the next youngest between 10 and 11, all the rest are over 11. There are 48 between 13 and 18. No women or girls are employed. Our usual hours are from 7 a.m. to 7 p.m. Sometimes a few will stay till 9 p.m. Two hours are allowed for meals,—half an hour for breakfast at 8 a.m.; an hour for dinner at 1 p.m.; and half an hour for tea at 5 p.m. They get their meals here, or go home to them, as they choose.

I think there would be a difference in the pieces, if two boys were to teer in turn for the same piece. Alternate days would be better than relays on the same day; that is to say, in a place like ours, where all is block printing. We should not suffer much, if no boys under 13 worked; but the men would have to pay higher for older boys. It does take some time to teach a boy; not only the teering, but the hanging up requires some care and dexterity in a boy, to prevent the wet sheet from dropping, or the folds from sticking together, as he moves them. As most of our men hire, and pay their own boys, according to the general usage of block printers, who work by the piece, our power of interference is limited. If we knew of a man not paying his boy on a Saturday, we should set it right somehow, speak to the man, and perhaps stop it out of his own earnings, and pay the boy ourselves. We have once or twice interfered so, and have had to discharge men who did so, but I don't think it often happens here. Every now and then we get a black sheep in. They are drunkards generally that do so, and we are obliged to get rid of them. Another consequence of their being piece workers is that the boys are really not at work for a great portion of the time they are here. The men often don't choose to come till 9 or 11, and we don't allow staying late; besides, they can earn often in half a day as much as they want, and so take it easy. We leave off on Saturday at 4 p.m. Our regular holidays are Christmas day, Good Friday, and Easter and Whit Monday. Besides the night school in Ebury Street, many of the boys go the Sunday-school.

[At Mr. Scott's desire I read over to Mr. Carter the evidence I had collected at their works, and a portion of the foregoing statement was in the nature of comment on that.]

Henry Bradwell Parry, block printer.—Am 42; have been at it ever since 10. Boys are sickish when they begin, but soon get over it. 10 hours is the most a boy works here. If you have been away for two or three days and come back again, you feel faint at first from the smell of the size. Have been 14 years in the sick club, and not had 14 days illness; that was biliousness, but not from the smell of the paint. We divide our sick fund money every year, and get quite three-fourths back again. The last case was a death with 9 weeks previous sickness, caused by drink, not by work,

* On the effects of Arts, Trades, and Professions upon the Health, &c., p. 108.

and even that only reduced our share to about two-thirds. So our general health is very good. I don't think there is one man in two months ill for so much as a week, and those that are ill, mostly drink. We generally have a good deal of air; just now that metal work requires the window to be shut so as not to dry too quick.

That man there, the metaller, will get away at 5½ to-day. They can earn twice as much as a water-colour printer. As a rule the boys are all healthy. They don't generally stay in the shops for dinner. If it is wet or cold, they get round the fire in the colour shed, where nothing goes on to cause any bad smell or unwholesomeness.

The heaviest thing a boy has to carry is a block now and then of 12 lbs. weight to take and get washed. We have teerers up to 15, very few under 11. They could all go to school. It is not the influence of the trade that prevents them. All have done by seven. Some have a two miles walk to come to work here. The smaller employers, who have perhaps eight men or so, may work several hours overtime, we don't. There are many trades much worse for boys than we are in London. I know boys are employed in many oil and colour houses for 14 hours a day in cellars underground, and if they do come up it is to a gas-lighted back room. They get no fresh air anyhow as we do.

If a father has a child, the rule is he comes into the trade with him. I think it would be well to make closing at an early hour compulsory. Half time would not suit us for the boys, and they don't need it. A boy must be trained for a month at least before he is of any use at all, and each boy must be fit to do several things,—teer, roll-up, lay down, hang, and other things. If you take the average of London manufacturers, you'll find that boys don't begin till they are 10; with us that is so certainly. If we had half-time and relays of boys, they would all go at once to some other trade that is not regulated by law, where they could earn more than they could here. It would be a great injury, too, to the parents; many a time a boy's earning makes the whole difference between a little comfort, and pinching in a poor family.

Boys earn here from 4*s.* 9*d.* a week. I give mine 4*s.* 9*d.* and his tea; metal workers get 6*s.* 3*d.* I should say 5*s.* 3*d.* is a fair average. When we men were better paid, the boys got less than now, not more than 3*s.* We don't work the year round more than five days a week. We often take half a day, and make it up again; we never stop their money though we don't work for a day; for instance, we did not deduct for Good Friday. I calculated once that in nine months I took 21 days.

James Watson, block printer.—Am 37; began at 7 helping my father; I used to go to evening school; it was my own fault that I did not learn more; I did learn to read and write, and to do sums. I think no boy should work before he is 9 or 10; not many do in our business. The confinement is the bad thing; the gold size is oil and gum and turpentine; for flocking we have red or white lead; the flock is all ground cloth dyed with some vegetable dye; does not do any harm. The lead never hurts, unless you get it up your nails; you have only to be careful and cleanly.

The boys wouldn't stay for half-time and half-pay; they go off, as it is in summer, as hawk boys, to serve the plasterers, that is, and get better pay, and, as winter comes on, come back to us. If my boy liked to go at six to school, I should always let him, but he says he won't. He would be very good, but his father drinks, and his mother drinks, and so sometimes he has shoes to his feet, and sometimes none. I was foreman for three years at Trumble's, in Leeds; there they have machinery. I think it ought to be fenced, and boys ought not to be allowed to damp the sieve. I saw myself a boy's hand torn by it, and two others were badly hurt while I was there. There they are kept at it hard from 6 to 6, and boys come much younger and are paid 2*s.* 6*d.* and 3*s.*

Alfred Mahon, teerer.—Am 13; began at 10½. Don't go to school now; went for five years before coming here; can read and write and do sums; have forgotten fractions. I teer or hang up or roll. Dine in the shop or yard. Come at 7 a.m. generally; sometimes 6, sometimes 8; leave at 6 p.m. My master comes at 9; I clean up shop and roll before he comes.

Henry Scott, block printer.—Am 40; began this business at 7. The most unhealthy of our work is the gold size, in which there is white lead, and the flocking, where boiled oil and lead are used. Where emerald green affects you is in the mixing before size. I have worked with it several years; it has made my nostrils sore. Have seen boys' fingers bad with it; that comes of their not being clean; we never have to work at it long enough together for any serious results. Most of men have been boys here, and then apprentices. If the boys behave well, they apprentice them at 14. There were no schools subscribed to by the firm in my time as now. I used to go to an evening school, though. It was the parents' fault if the boy did not go to school, and is so still; they are not too tired.

Henry Andrews, teerer.—Am 13; went at 10 to work at Mr. Godwin's; was at school for about two years; learned nothing; can read and write a little. My brother is a good scholar; he is 16; he reads at home, and teaches me to read. We come to work at about 7 and our masters at 9. We leave at 8, sometimes 9, and sometimes 7; we might go to school of a night if we liked. Working after 7 p.m. is overtime; we don't get paid for overtime.*

James Scott, block printer.—Began at 7 years old; have worked for 40 years. I count the time my boys work for me eight hours; they don't begin so young as 7 now. The gates close at 8 p.m., and we seldom stay after. What we pay our boys extra depends on what we have to do; we often have to wait half a day doing nothing, and then keep them to work up. I have been waiting for a block all day; it is 3½ p.m. now; I have earned about 6*d.*, as yet, and shall have to pay that boy 9*d.* The worst of the boys' work is the slopping in washing the blocks, getting wet at the pumps I mean; they come in sometimes with all the front of them wet through, and go on working so.† The labour is nothing; not even the men's. They run away as it is; if they worked half time and had half pay, they would run off altogether. I think they are generally small; a little one of his age is less likely to leave us, less likely that is to get employment elsewhere, and is more handy too.

* This statement may have been made under some misapprehension, I did not receive any confirmation of it from others. —H. W. L.

† This appears to be an error; a man is specially employed to wash the blocks; the boys do wash the sieves and teering brushes, but in a trough for the purpose; their wetting would seem the result of playing together while so employed at the trough.—H. W. L.

[Mr. Taylor, the master of the school in Ebury Street, referred to in the foregoing evidence, informed me that about 50 of the boys have attended in the year, and that the average is from 30 to 40; 12 or 13 have been taught to read, and the rest are beyond that; it is not a ragged school, for the boys pay 2*d.* a week, and have four nights instruction for it; they are a class above the lowest roughs, and the boys from Messrs. Scott are rather below the average of the school in "social status." Mr. Scott pays for them; and Mr. Taylor, speaking from six or eight years experience, says that the boys who pay, and even those who are paid for, take twice the pains and give not half the trouble that those do who are taught gratuitously.—H.W.L.]

Paper Stainers.
London.
Mr. H. W. Lord.

At MESSRS. COOPER, WILLIAMS, AND CO'S. WORKS, WEST SMITHFIELD, May 1862.

Henry Bateman.—I am the foreman of the paper stainers here, and have been in these works for 20 years. Ours is an old established house ; we have 22 boys under 13 ; the youngest one is between 8 and 9 ; the next between 9 and 10, the rest are all over 10 ; there are 19 between 13 and 18, and 30 adults. Our usual hours are from 8 a.m. to 7 p.m., and for about a month or two in the year at most we work an hour a day overtime, till 8 p.m., that is ; one hour is allowed for dinner and half an hour for tea, and they take nearly half an hour for lunch besides. They have their meals where they like. Ours is all block printing.

There are not two months in the year in which we work more than 10½ working hours. We stop on Saturday at 4 ; there would be little or no inconvenience in limiting the work to 12 consecutive hours, including meals, but they should not be arbitrarily fixed from 6 a.m. to 6 p.m. for London. There would be great difficulty in making children up to 13 work half time, although as a matter of fact they are often not actually at work for more than 6 or 7 hours in the day ; many of the men don't come till 9 a.m. and often give over at 6 p.m. There is no part of block printing, in which a man can get on without his boy, and, so long as block printers work by the piece, the men will be irregular, and the boys' employment by consequence uncertain, for the men hire and pay their boys themselves ; but, besides that, no boys would stay for half pay ; there are plenty of other sources open to them, by which they could earn more than they then would at our trade ; what they now have is 3*s.* 6*d.* or 4*s.*, and after 13, as it is, they soon go off to something else, so that the men would have to pay considerably higher than they do, if they had to take boys over 13 only.

All are certainly healthy ; the subscription to our sick fund is 6*d.* a week, and 12*s.* a week is allowed in illness, yet last year we divided 24*s.* as the share of each ; it has been as low as 16*s.* We pay 5*l.* on a death.

We have two hand machines worked by a wheel for grounding and colouring ; two boys turn the wheel, and they are now and then relieved by the others, who are generally hanging up or pulling out.

They are supposed to go to Field Lane Ragged School, but they don't learn anything there as a rule, one or two have, but not the greater number. That boy who told you he was 8, can't know his own age, for he has been here 3 years.

The men live quite as long as artizans generally; we have a man now over 60 working for us.

Joseph Cooper, printer.—Am 24, began to teer at 7. Have worked 3 or 4 weeks at a stretch on emerald green, at Goodlads of Newcastle, and never felt more that the temporary irritation of the nostrils and lips. For flocking and gold size, turpentine is used for lowering with white lead, but no harm comes of the lead that I ever found or heard of.

We would not work with relays, the boys would be off at once to type foundries, or printing presses, or shoe blacking ; at all those and many others they could get more than half-pay with us. I think that most of the boys that leave the trade get into a good position, that is, better themselves ; they do have some discipline with us, and learn to be careful.

Hugh Mulvey, printer.—Am 34 ; began at 9. Boys seldom stay over 14, they will then get 4*s.* or 5*s.* a week. It is difficult often to get them at all, and more so to keep them ; sometimes a boy will go off without notice to some other work, and then the man is helpless ; sometimes a lot of them will have a kind of strike ; even supposing they would come for half-pay, we could do nothing with them, they would be less manageable than ever. Their parents like them to get into less messy trades, ours spoils the clothes so.

William Bills, printer.—Am 30 ; have worked for 16 years at this ; was for three months, without any change, on a large order for emerald green once. It used to make me a little sore when I sweated, nothing more. The only man I ever knew suffer from it was one that worked at that table next mine some years ago ; he was always ill, but he had a heart disease or consumption. Our work is very healthy. Look at us.

At MESSRS. TURNER AND OWST'S WORKS, ELIZABETH STREET, PIMLICO, May 1862.

Mr. Wilberfoss Owst.—I am the junior partner in this firm. Ours is all handwork, but we have peculiar machines in which the printing block slides in a groove from the teering sieve to the printer, instead of being lifted by his hand. We have 65 persons employed here ; none are females. 19 are under 13, the two youngest being between 9 and 10 ; 14 are between 13 and 18 years old. Our usual hours are from 6 a.m. to 6 p.m., with half an hour for breakfast, 8 till 8½, and an hour for dinner at 1 ; half an hour is allowed for tea when they are working overtime, but that is only about a dozen for two or three hours on some days in the week. In winter we close at 6½, and begin at 8 ; then there is no half-hour for breakfast allowed. There are 13 boys in all, children and young persons, who work overtime in our place. I think that there would be a perceptible difference in the print, if one boy had to follow another in teering for the same piece. One has a lighter touch, and puts the colour thicker on the sieve, so that it would happen that two pieces of the same pattern would be printed by the same block-man, but would not hang side by side. If the children worked alternate days, the same objection would remain, but less in degree, for they would be more likely to begin a fresh pattern in the morning, and to keep at it during the day, than to begin another after dinner. It would not make much difference to us, if no boys under 13 worked, as would probably be the case, if they could only earn half their present wages ; but then boys above 13 would want more wages than those below that age. I think a regulation, which left us no discretion as to overtime, would be mischievous ; certainly one which limited us to 12 consecutive hours from a given time would be very inconvenient.

Our men have several holidays in the year as a regular thing. To-day we are going to give them an exceptional half-holiday for the opening of the Exhibition. On half-holidays they work on through the dinner hour, and then leave.

John Aves, block printer.—Am 35 ; began at 12. Was four years at school before that. We have a sick fund here. There are not, on an average, three ill in three years. The boys' work is not laborious ; they make harder work at play than they do at work. I used to teer when I was a boy ; most of us have grown up to it through all the stages. All here, men and boys, are time workers. That is much better for the boys, for they are paid by the manufacturer, and not by the men for whom they teer, so they are sure of their money. When the block printer hires his own teerer, the boy often does not get his money for weeks together. We have four or five regular holidays in the year here, and if one of us wants half a day now and then, we can always get it. It is the same with the boys.

Richard Deane, block printer.—Am 22 ; began at this 13 years ago. Went to school before that, but learnt nothing. I used to work as that boy is working, first teer the cushion for the block, and then press the block on the cushion to take fresh colour up, by means of that long arm which projects that is called the dipper. Leaning on it like that with my stomach

Paper Stainers.
London.
Mr. H.W. Lord.

each time to press it never hurt me, nor any of them, I should say.

James Oborne, foreman.—Am 55; have been here 42 years, and was at Messrs. Scott's for two years before that. Am foreman of these works. When I worked as a boy here, the hours were the same as now. I got no harm from it. Used to go to night and Sunday schools. We always leave off at 5½ p.m. on Saturday. The marblers are the only piece workers here. We did not do marbling here till about nine months ago. The boys that help the marblers are paid by the men; all the others by the firm. All our printing is done by hand machines, and in most of them the block slides in a frame from the paper to the teering cushion and back, and the boy teers and uses the dipper. The man presses the block with a worm-screw lever. Most go home to dinner; those that stay have it in the shop or the yard, as they please. There is no ill usage of the boys; just a lick of the head now and then, perhaps.

Charles Knight, teerer.—Am 12; began at 10½. Went to school for six years on and off before that. Can read and write a little. Don't go now; am too tired after work.

Francis Collins, marbler.—Am 25. Marbling is my work. There are four tables in this shop, and one boy to each. We all use the white lead, boys and men. It only hurts if you are not clean; you get drop hands, as they are called. I don't think there are more than six or seven marblers in the whole London trade who have not drop hands.* I have not. Have never been in any way affected by it. Our time in this room is from 8 to 6, that is, the boys come at 8 to get ready, and we at 9. Some of our boys live at Hackney, and walk to and fro. I give my boy 7*s.* 6*d.* a week; the average, I should say, is 5*s.* I don't think we could keep them at all, if they had to work and be paid for only half time.

Robert Taylor, foreman of marblers.—We have three other tables besides these. I used to teer as a boy in Old Street. We used to be cruelly treated. The men who hired us used to find some excuse to send us out on Saturday night to fetch something for them, and when we came back they would be gone, and would not pay us at all. There are places in our trade in London, where Government interference is needed both to restrain the overtime, and to prevent hard work and ill treatment of children. Half time and relays would be very inconvenient. Boys take six weeks to learn the business, and they would be sure to go off to other trades, where they might work a full day and earn more.

Charles Fulcher, metalling boy.—Am 13; came at 10½. Before that used to go to school; don't now. We do the metalling here; begin at 7 a.m., and work till 9 p.m. We have half an hour for tea besides the rest. We are not any of us allowed to play in the yard at meal times, because of the neighbours, but we may in the shops. I have to teer and to lay the leaf, and then rub it off with flannel or cotton wool. I get 6*s.* a week and 1½*d.* an hour overtime, after 7, that is, and ¼*d.* a piece of 12 yards for leafing. It is not hard work.

At MESSRS. CHARLES SOUTHALL'S AND CO., 157, KINGSLAND ROAD, May 1862.

Mr. Charles Southall.—Our work is almost entirely graining for woods and marbles; we have four block tables, however, for the regular paper printing. Most of our men, all but the machine men, work by the piece, and they generally pay their boys themselves; but if they don't behave well to the boys, I take them out of their hands, arranging with the men to pay the boys myself, and deduct it from the men's earnings; this is when they don't pay them regularly. We pay nearly two-thirds of the boys; there is not any ill-treatment now; we have a fine here for striking boys. Most of the boys whom we employ directly are over 13, and those employed by the men are under; there are six here under 13, but the youngest is over 10. The trade would not suffer, if none were under 13. My men wouldn't mind having to take boys over 13, if I required it; they would, of course, have to pay them a little more; as it is, they don't pay more than 4*s.* a week; we pay from 6*s.* to 9*s.* We find the older and higher priced boys answer our purpose best in the long run; we have 14 between 13 and 18; we don't like them so very young. The men often take them young to oblige their parents; they are often the children of widows, or orphans dependent on their relations. They wouldn't and couldn't work half-time for half pay; a London boy has loads of openings for him. Very few are at all educated; no respectable parent will send a child to us, they don't like the dirt of it; we have tried to get a better class of boys with some education but can't succeed. Some go to school, but don't seem to do much there; we have tried to get them all to go regularly, but they won't; there are plenty of night schools about, and they all live near. None should come under 10; they are no use, and the hanging up is too much for them; even rolling up, which looks very simple, cuts a boy's fingers about a good deal till he gets handy with it. Our machine does all kinds of work, printing, grounding, or graining; sometimes we use it as a mere auxiliary, and finish by hand. We always stop for dinner, as it is now. We don't go in for larger quantities and low profits, but aim at a good finish and good prices; where they do a "cutting" trade, they must work on without stopping. The boys have nothing to do with the machinery. An hour is allowed for dinner and half an hour for tea. Both men and boys generally take their meals at home; there is scarce one here now. The men don't come till after breakfast; our usual hours are from 7 a.m. to 7½ p.m. We are slack in autumn; still we work then on new patterns, putting the best into stock. We pay at five on Saturday. There is not any overtime to speak of; still we should not any of us like not to have the option. The men take three or four days holiday now and then, at Whitsuntide, perhaps; and we like to work that up to some extent. Of course the boys must work and take holiday as the men; I mean the one can't get on without the other.

Our sick club divides nearly all the subscriptions out again; the average illness here for the past 12 years is one in six months. I have been in the business 24 years, and worked at it, and I never suffered. I have had two men affected by the white lead in marbling, that is the only thing that does us any harm, but they had weak constitutions.

I never have any trouble with my men; most of them have grown up to their work with me.

At MR. JAMES TOLEMAN'S WORKS, WILLOW ROW, GOSWELL STREET, May 1862.

Mr. James Toleman.—I am the proprietor of these works, which are confined to hand or block printing. We have only one boy under 13, and he is a learner, and 18 boys between 13 and 18. There are 19 adults.

We work occasionally as late as 9, but only one or two tables. Our usual hours are from 8 to 8 the whole year round. They have an hour and a half for meals; dinner from 1 to 2, and tea from 4½ to 5. They have a lunch in the morning as well, but that isn't counted. They breakfast before they come.

I have tried for the last fortnight or so to make the men come regularly at 8, instead of about 9, as they generally do, by locking the doors and refusing admission to any after that hour, and the consequence is that I have five or six tables unoccupied and have work enough for them all, for I am very much pressed

* The general opinion does not confirm so sweeping an assertion as this; *see* Nail's evidence, p. 22; Cole's, p. 24.—H.W.L.

Paper Stainers.
London.
Mr. H.W. Lord.

now; so they work, those that are here, half an hour or so, some of them after 8 p.m. We don't want any boys under 13. The men would pay less for such; that is why they say they can't do without them; here they do do without.

Frederic Rose, foreman.—Am 37. Began at 7 years old. Have seen and gone through with the whole of it,—teering, flocking, printing, and everything. Was 20 years at Archer's. There we used to work for six months from 6 a.m. to 10 p.m. I stood it all well enough. It can't be called unhealthy. A boy here and there goes queer with the paint; but for one that does, there are 10 that don't. When they are clean and tidy, nothing is injurious. No one works long together at emerald green now; we change about. That man has been at it for two or three hours this morning; he will finish in another hour or so, and then probably won't see emerald green again for several days. We don't make our own colours. I think school is a good thing, but I don't know about these ragged schools. The parents are the chief obstacles. We paid for schooling for a rather intelligent boy we had here, and his father only blackguarded him and us. We very seldom have apprentices now; they are only a trouble. The men, some of them, will drink at a bout for a week together, and then the boys hang about doing nothing, or run off and are not forthcoming when their masters return.

Joseph Hames, block printer.—The trade is not unhealthy. My father is 68, and another man I know 83; they are not working at it now. We do suffer from weak sight. Every printer over 40, I should say, does. We have to strain the eye in pitching the gauge for the pattern to fit. The men don't wear spectacles for fear that it should be thought that they were unfit for their work and so be discharged.

Joseph Nail, marbler.—I think "drop hands" are rather the exception than the rule with us. I have been at it for 16 years and have had no ill effects from the white lead. We always use it pure, unmixed with whitening, that is; the boys do use it, but not much. The emerald green is worse, but cleanly persons are not affected. The boys, many of them, will not wash, but eat their meals with dirty hands covered with paint and mess. I have seen them eat their dinner with hands smothered in lead.

Henry Iden, colourer.—Am 55 now. Began at 8. Have worked in all heats and at all colours. The colours used to be more injurious than they are; but I was never harmed by the green or anything, and am quite hearty. My sons are just the same. Cleanliness is everything; but some constitutions are much more liable to be affected than others. I never knew a boy to be laid up for long. These three, who work for me at this hand colouring machine, go to school; they can read a little. The penny playhouses are the ruin of the children; there are five of them close handy here; that's what Government should put a stop to; they are kept up by boys and girls under 18. It's the fault of their parents for letting them go. I always know when they've been, for they go acting and singing next morning what they heard over night, and right blackguard stuff it is if you overhear them.

At MESSRS. WILCOXON, 1, STONES END, BOROUGH.

George Ottley.—Am manager of these works; have had 25 years experience. The boys are a bad lot, very ignorant and rough. Those that work for their fathers rather worse than the rest. The men are improvident and very independent. We have a printing machine, and block tables also. There are four boys in the machine room, they are all over 13. We have seven under 13 and 18 between that and 18; the youngest here is over 10. I think boys under 10 should not be allowed to work at all; but the arrangement of half-time, or alternate days for all up to 13, would be very awkward; they would not come at all so long as they could earn more by a whole day's work elsewhere. Our hours are from $8\frac{1}{2}$ a.m. to $7\frac{3}{4}$ p.m., and we never work overtime; they have $1\frac{1}{2}$ hours for meals. They don't any of them get under 5*s.* a week in our place. We shouldn't allow boys without shoes and stockings, and with their clothes in tatters, to be on our premises; they are quite bad enough necessarily, but we will not have the very lowest. A clause which allowed work for 12 consecutive hours between, say, 6 a.m. and 9 p.m., inclusive of the usual meal times, would suit us very well, but the factory hours, 6 a.m. to 6 p.m., are not suitable to the habits of the men, nor to the requirements of the trade. Our machine is always stopped for dinner. There is no waste of colour and paper to speak of. I can understand the loss of time not being liked.

George Culver.—Am foreman here; have been 30 years in the trade. Many of the fathers drink, and the sons of course suffer for it. One of our men earns 4*l.* a week; he has a son here 13 years old, who can't read; that man drinks. Some of the boys keep on pretty steadily, and some are always changing from place to place; you won't find all the same lot here in any two weeks following; that is very inconvenient for the men, as it is some time before a fresh boy can be taught, and when one goes, another can't be got at times easily. We pay the machine men and boys ourselves, and some of the block printers, but most of them are paid by the piece, and pay their own boys. If there were a complaint made to us that those men didn't pay their boys, we should stop it out of their earnings, but there never is such a complaint. Some of them go to school, but I don't know what good they get; of course they might get good, if they really learnt anything. I never heard of any paper stainer having bad eyes. They are scarcely ever ill, and then it's with drink. The emerald green is certainly bad, but no one ever works long enough at it now for any harm. As for white lead it is not often used, it costs too much; there are other things that do instead, and cost less. The men are not short-lived; my father worked 40 years at it, and never suffered. I know a man of 65 who was working very lately; we had a man not far off 70.

We have only these two machines worked by steam, the grounding one on this side, and the printing one on the other; the boys have nothing to do with these; they "lay down" and "roll up;" the man oils them in the morning the first thing. The straps are all above head, out of reach; they might always be put so. No accident ever happened in my time.

At MESSRS. JOHN WOOLLAM'S AND CO., MARYLEBONE LANE, May 1862.

Frederick Sim.—Am manager here; have been 26 years here. There is no need to regulate us, for we are just as if we were under the proposed bill now. We open the place at 7, but the men don't come till 8, and there is no overtime. The engine stops at 7; on Saturday we pay at 4. Our chief work is the block printing, and we have one machine only to supply such of our customers as want a commoner class of work, instead of getting it supplied to us by other houses, as is generally done. Our set of men work both the colouring or grounding and the printing machines, so that they are never at work together. We only started them because we found we could not rely on the goods supplied to us. The engine does not stop for dinner, but the only consequence of that is that the man who looks after it sits down and eats his dinner there, keeping an eye to it; the boys need not stop in the room, and don't; they have nothing to do whatever with the machine. It is not of the sort that wants fencing; the shaft from the engine-room is covered in, and there are cases over the wheels. The boys are very healthy, and their work is not heavy; they could all go to school if they chose, but, as it is, they are a rough ignorant lot. The fact is that no respectable parents will put their children to the work. Our men seldom bring their sons into it; they can get them better places. The majority of them stay a short time, and then disappear, going either to another place in

the trade, or if they grow big, to some other trade. The undersized ones can't get other work, and that's how so many seem stunted; it is not the sort of work, for they are, men and boys, very free from sickness. When they are industrious and remain, we take them in hand, and put them to print as they grow up; we have two or three such now. Our slack time is August and September; then there's not more than a half day ever done, and it's hard to keep the men at all. From November to July we are very busy, but we very seldom work overtime. The man who does the gold work, may have half an hour now and then, if he has not put the leaf on all the pieces, when the time to leave off comes; that's because, if left till morning, the size of the pattern would be quite dry, and the leaf would not then adhere. I think none should work before they are 10. Education is the great thing wanted.

John Fulcher Smith.—Am now a traveller for this house; have been foreman in a paper hanging manufactory, a larger concern than this, in St. Martin's Lane; 19 years ago that was. We could get none but the very lowest class then out of St. Giles's. We always have to go to the worst lot for our boys; they come into it from all sorts of trades, and don't stop and grow up in it, as a rule. I think no boys should be allowed to begin till they are 10, and the work should stop at 6 p.m. They are a bad lot, but schooling and kind treatment, that is, attention, would improve them. Compulsory education would be a good thing for them. The present system of the men paying their boys works badly, for the masters have nothing to do with them, and so don't care about them.

Paper Stainers
London.
Mr. H. W. Lord

[I had arranged with Mr. Hubert, the proprietor of these works, to go over them at an appointed time with him. From some cause, which was not communicated to me, he was unable to keep that appointment, and did not propose to make another. The above evidence was obtained in conversation, while I was waiting on the occasion above referred to, and as I discovered subsequently that the general features of the London trade were in the main identical, and had no reason to believe that these works presented any peculiarity, I did not make another attempt to see them.]

At MR. SPURWAY'S WORKS, HOWARD ROAD, STOKE NEWINGTON, May 1862.

Mr. Spurway, proprietor.—We have only one block table here, the rest is all machine worked by steam; there are two small and one large machines for printing, one for grounding, and four for rolling up. We have 14 boys in all, and nine of them are under 13, but none under 10. There is one boy to each rolling-up machine, who manages it entirely himself; all he has to do is to stand behind the steel rod on which the paper rolls itself, and as the knife falls at the end of each piece of 12 yards, to take that piece off, and attach the paper to be rolled anew to the rod. Then there is a boy to each of the other machines to lay the paper down in lengths, as it comes off the hot plates at the further end away from the machine; one more has to keep his hand upon a handle which stops the large machine, and pulls it for that purpose, whenever the man who drives that machine tells him.

From November to February our hours are from 8 a.m. to 9½ p.m. or 12½ in the day; from February to June 10 and for the rest of the year we work only 7 hours a day; they breakfast before they come, and have tea after they go: they have an hour at 1 p.m. for dinner. When we have to work more overtime, which is very seldom, and only with one machine, I always keep one of the bigger lads.

They generally go to school in the winter of an evening three times a week, and they play in the summer; they go for the warmth as much as the schooling, I think. In the cold weather, when we are working with, perhaps, only half our hands, before or after our busy time, the others will often come and ask to take a turn and help the others: for they like the warmth of our place better than the rain outside, or their home without a fire.

I have had machines for nine years, and never had any accident from them; nor is there any absence from illness. On a fine morning the boys will sometimes be off in a body to the forest, and leave us helpless; once I caught the ringleader, and sent him off about his business, but the rest of them took up their caps, and went off too. We always stop work for the dinner hour, and they almost all go home, for they live near; the loss from waste alone by stopping is a mere nothing, a yard or two of paper spoilt at most. Some of the boys get as much as 5*s.* 6*d.* a week; others about 3*s.*

At HOLMES AND AUBERT, 20, LOWER ROAD, ISLINGTON, May 1862.

George Balls.—Am clerk in the counting-house; have been about the place seven years; my father was here 31 years. Ours is all block-work here. Our hours are 7 to 7, and from 8 to 7 in the winter; on Saturday we pay at 6. We have 2 yards here; the boys always play there after dinner. They are a very ignorant set; it is the fault of the previous generation; men used to earn their 4*l.* and 5*l.* a week here and drank it away instead of educating their children; now 2*l.* to 3*l.* is the most a man earns, and they drink still; the boys average 4*s.*; they often don't get paid, and then the parents come down to us. The men treat them better than they used to do. If they are not paid, they often go off to some other of the neighbouring paper stainers, so they are rather independent. Most of ours go to school. They are very healthy. We provide them soap and towels for washing; I don't think they are very fond of using them.

All breakfast before they come and have an hour for dinner and half an hour for tea.

We have 11 under 13, and 12 between that and 18; none are under 10.

John Downhan, block printer.—Am 62; have been through the whole thing, the very worst of it; have never been laid up. Have been three months on end working at arsenic; it depends a good deal on constitution; some I have seen break out all over after working a few days at it. The work we have is very healthy, and light too for the boys; they get tired with being on their legs a good deal, but they play for all that.

James Petre, block printer.—Have been for 40 years at this work, and began at 13. The green affects me wonderfully, not only lips and nostrils, but under my armpits and thighs. I had what the doctor called granular eyelids; that he said came from the arsenic: after 2 or 3 weeks work at it nausea would come on, but we never work so long at it now; we don't use 2lbs. for 20lbs. that we used to. There are few so affected by it as I am. My teering boy does look pale; that isn't the work though, the poor little fellow is underfed; that's the reason with most of them that look unhealthy; it's not the nature of the business, but want of food. He has only a mother, and she is very poor; he can read and goes to school; most of them do here, in the winter, that is, while school goes on; now they only go to Sunday school.

It is all nonsense, sir, if you will pardon me, about paper stainers not living over 50. My father is 70 odd; my brother is older than me; there is Phelps too, he is 80.

John Cole, marbler.—Am 25 years old. I only know one man with "drop hands;" it is not by any means very general; of course there are several others with it, still it is not the rule, and it is always their own dirty habits and carelessness that bring it on There is no stench or anything of that kind from the white lead we use; it is the eating meals with dirty hands, and being dirty in mixing, that cause the harm. The boys don't touch it.

per Stainers.
London.
r. H. W. Lord.

At MR. GODWIN'S WORKS, PARK WALK, CHELSEA.

Robert Knights.—Am the warehouseman; have been here 2½ years. Our hours are 7 a.m. to 7 p.m. and no overtime; in winter we begin at 8; we have now about 14 blocks in work; a man and a boy to each; the men all treat their boys well; none of them are under 13, there are 18 under 18. Three or four of the boys are employed in the colour shed grinding and mixing; those are paid weekly by Mr. Godwin himself, and so is another who helps at the rubbing machine, he is 16; that wants a strong boy. The rest are paid by the men. They are all healthy, I think. They have two hours for meals; dinner from 1 to 2; tea and breakfast when they like.

George Lamb, block printer.—Am 40; began at 7½ years old. They don't begin so early now. We never have them laid up. Two of my sons were at it. I took them away to out-door work, I thought they weren't healthy, that is strong; not because the work itself is unhealthy. It is close in winter, when the stoves are lit for drying.

Charles Lamb, teerer.—Am 14; began at 10; teer for my father; used to go to school, can read. I'm strong enough.

James Webber, teerer.—Am 16; have been at it six years; work with my father; most of them that have sons, bring them to teer for them. Can read; used to go to school; there are evening schools lately established near us. Boys come early to roll up, and to clean the shop; from 7 to 7 is the utmost. I believe emerald green has been in general use for the last 20 years; when we perspire much or have a cold we feel it; but if you are cleanly, it doesn't matter.

Henry Heitman, teerer.—Am 13; began one year and nine months ago. Read and write a little, don't go to school now. Am teering for a bronzer. He has to wear a handkerchief round his mouth when he is bronzing, but that isn't done near me, it is lower down in the room.

Samuel Smith, teerer.—Am 10; have been at work for a year, was at school for a year before that; learnt nothing there; don't go now. Am never ill at all.

Daniel Taylor, satiner.—Am 23; have worked at another factory driving the engine and feeding the machine with colour; am now rubbing with French chalk to polish. No ill effects on me. Am paid by the week.

Edward Lynes.—Am 15; began at 10; go to school now from 7 to 8½ of an evening three nights a week, there is no school in summer. I mix and grind the colours. Am in good health.

Mr. John Godwin, proprietor.—I want to tell you about this emerald green. It all depends on whether the paper is machine printed or not; if it is, it is dangerous whatever the temperature, for they require rollers for machine printing, and the colour can't be worked on the rollers in a set state, but must be liquid; and when that dries, it becomes a dust on the surface of paper, which shakes out and can be brushed off, but the hand block work is set with size, so we can work it hard so as not to rub off. I can make a dead emerald green paper that will wash without anything coming off, and that without varnish or any such thing. This room of mine is papered with emerald green paper; look, I can rub it hard, I can lick it a dozen times with my tongue and nothing comes off. Arsenic will not volatilize at a temperature of 160°, and no room is ever at that heat.

I have never heard of this bill before, nor of any proposition for Government to interfere. I don't think the boys here work too much, and they have time enough of an evening to get all the education they need.

At MESSRS. CARLISLE AND CLEGG'S, 31, ESSEX STREET, ISLINGTON, May 1862.

—— *Thomas.*—Am foreman here; have been 40 years in the trade and never got any harm from it. It is very seldom that we have any men or boys ill; they come at 8 a.m., or perhaps 7½, and are always away by 8 at night, and on Saturdays from 4 to 5. Sometimes when there is a job to be done in a hurry, they work an hour overtime; they have breakfast before they come, and 1½ hours at the least for dinner and tea, and often a good bit more. Our work is all block printing and piece work, so the men hire and pay their boys; they pay them whether there is work or not. We are going to other premises in June, where we shall have machinery also. Ours is not a season trade, but goes on much the same all the year. The boys have exercise and change enough; they are on their legs all day. Many of them go to Sunday schools, and some to night schools; it is their parents' fault generally if they don't; they certainly are a very ignorant lot and very rough. From 10 to 12 is about the best age for a teerer; the men could not so easily get a boy over 13 to come, nor to stay long, if they did; parents would be sure to send them where most could be earned, and can't be brought to see the gain of having them educated. As for overtime, working for at the utmost 12 consecutive hours, including two for meals, between, say, 6 a.m. and 10 p.m., would suit us, in fact it is what we do at present. They take their meals in the shops or yard as they like; some go home; after dinner they always play in the yard. There is a deal of washing in our business, they can't have their hands long remain very dirty.

At MR. ERWOOD'S, GOSWELL STREET, May 1862.

Mr. Erwood.—My works are on a small scale; there are 11 tables with a man and boy to each, and two small machines for grounding and satining, worked by steam power; that was some time ago placed upon my premises chiefly for another purpose, which has been abandoned. The boys and men show no symptoms of sickness beyond that which ordinarily attaches to indoor occupations in a city. There are 14 boys in all, two of whom are under 13; the hours are from 8½ a.m. to 8 p.m., and 4 p.m. on Saturday; half an hour allowed for tea and an hour for dinner: lunch is practised, but not recognized; no overtime is taken.

I am between 40 and 50, and was born to the trade; I used to work from 4 in the morning till 8 at night often; that never hurt me. They were much better boys then than they are now. Relays could not be arranged in London; as it is, the shoeblack business takes many of our boys away; it unsettles them; for they can make, for a few days when the weather suits, much more with much less trouble than with us, and then, if you say anything to them when they have come back, off they are again at half a word. Our boys go to the ragged school; we have to give certificates; I think the encouragement is good, it stimulates them. If you overhear their conversation it is very bad; most of them are thieves; one of mine picked my pocket, while I was overlooking another at work. I try to keep them at work till they are 19 or 20, then they outgrow their thievish propensities often, and become respectable. If they were flogged and sent back to work, it would be better than prison, I believe. I once took a boy back into my employ, who was convicted before a magistrate of stealing, but in 14 days he stopped work and never returned.

I have worked for weeks together at arsenic green, and had no hurt from it; we should be glad enough to be rid of it though, for it is very dear, and we can't charge more for it than for cheaper greens, but people will have the tint. It is only bad if the skin is abraded, or if it gets under the nails, and a man doesn't wash; mere dirt will make a sore worse. Machine-made green papers must be worse than block-made, because the colour for block printing is worked almost in a

jelly, but the cylinder in the machine must have a more or less liquid colour, or it would not revolve ; and so there cannot be enough size to bind in the one as in the other.

As to overtime the men might very well so arrange their work as not to have to stay to finish off an order ; they can always calculate how long they will take within a little, and if they chose, or were compelled to come earlier in the morning, might be ready to close regularly at night. Turpentine varnish used to be fashionable, and then a man working it might get nearly intoxicated in two hours, but we scarcely ever use it now.

If their eyes suffer, it is from drink, not work ; an average worker will put his block on to print perhaps 40 times in 8 minutes, and each time he has to fit the pin to the gauge ; that is not like fine needlework, or small print, where you look continuously.

At MESSRS. JONES, ARLINGTON STREET, ISLINGTON, May 1862.

Thomas John Jones.—Am 41. Have worked at this since 10. Our hours here are 7 to 7 and no overtime ; that is, never more than 12 consecutive hours, including two hours for meals. Ours is all piece work. We have 19 here, 12 of them boys. We average five days of 10 hours work in the week, I should say. When I was a boy and teered, we were cruelly treated, beat about with the rollers and that, but there is nothing of that sort now. I have never seen any one struck here, but I dare say they give them a knock now and then ; they want it sometimes ; that isn't cruelty. I think the shoeblacks have helped more than anything to improve the condition of our boys. There was another source of employment opened to that very low class, from which they came, so they could make better terms, or leave their masters, if they paid them badly or treated them ill. Our flocker is away to-day ; he hasn't been well lately ; in fact, like too many of them, he drinks ; so his two boys are playing about there ; they get paid by him all the same. I should say he has been away 14 days in the last two months.

At MR. HENNELL'S, 172, SOUTHWARK BRIDGE ROAD, May 1862.

Edward Hennell.—Have been all my life in the trade. Have no machinery. All my men are paid by the piece. There are 10 boys here ; four under 13. Our nominal hours are from 7 to 7. I wish they were the real, but the men won't come till 9, and so the boys don't get here till nearly 8, and it is very seldom that any one works overtime ; sometimes they do an hour overtime. On Saturday I pay from 2 to 3. Some work on till 5 ; that is as they please. We work here for small "current" orders, so to speak, and not for stock; and now and then a job may come in requiring speedy delivery ; and if it is not finished overnight, the delivery is delayed for the whole of the next day. That is how our overtime work comes about generally. Mine is a season trade. The busiest time, from May to July ; then perhaps half the tables do an hour a week overtime. A regulation limiting the number of hours of work in the week would suit better than limiting to so many hours each day. At all events it should be allowed to work for 12 consecutive hours within a wider range than 6 to 6. Neither half days nor alternate days would do for children in London. There is a demand for children's labour. Here the average is 4*s.* a week, and 4*s.* 6*d.* for the bigger ones. They could get more than half that anywhere. Our dinner is 1 to 2. They get breakfast before they come; and as they often leave before 7 and in winter at 6, there is no time allowed for tea.

At MR. RILEY'S WORKS, MIDDLETON YARD, WORSHIP STREET, SHOREDITCH, June 1862.

Mr. Riley.—I am the proprietor of these works ; they are confined to making marbled papers. We have no steam machinery. There are 30 or 40 boys at work here, one or two just upon 13 years old. I won't have them younger. They have to fill in the clouded colours, after the man has put the veins on, and "to hang up" to dry ; a little boy wouldn't do for that, he couldn't reach over the table, nor lift the crutch high enough. Our usual hours are from 6½ a.m. to 6 p.m., but they often don't come till 7½. We are generally employed much the same throughout the year. In the late autumn and winter we are busiest, then we may make perhaps six hours a week overtime ; sometimes we have worked three or four hours overtime in one night, but we have not worked so late as 10 p.m. for three months ; we are now working from 8 to 6. The weeks before Easter and Whitsuntide are those in which we do most overtime, that is so as to get more holiday in the following week. Our meal times are, dinner 1 to 2, and tea about 5 ; they are generally taken upon the premises. I think some regulation of the overtime would be a good thing both for men and masters. If all had to submit to it, none would suffer I am sure I should not.

At MR. BEAUCHAMP'S WORKS, WARNER PLACE, HACKNEY ROAD, June 1862.

Mr. Beauchamp.—I employ three children and four young persons in block printing, to which my business is limited ; the youngest of them is my own son, he is 11.

Our meal hours are 8 to 8, but for the last fortnight we have begun work at 6½ and gone on till 8 ; we had not worked overtime for a twelvemonth before that.

They go home to their meals, dinner from 1 to 2, tea at 6 or so.

The boys are very ignorant ; only one goes to school ; and the men very irregular generally, though just now I am well off. I have had men who never thought of coming till Wednesday in the week, and then wanted to make up by overtime.

At MESSRS. ROBINS' AND KENDRICK'S WORKS, HAYNE STREET, BETHNAL GREEN ROAD, June 1862.

Mr. Kendrick, proprietor.—Our usual hours are 8 to 7½ ; in the winter we work rather more, but not more than once a month do we work overtime, taking the year round. It is all hand work. We have one boy under 13, five or six others between that and 18. Two or three go to school. For the last month they have had nothing to do, but we pay them to keep them out of the streets. They go home for their meals. Dinner an hour at 1, tea half an hour.

I don't think there is much done in London in the way of garret work, that is, I don't think printers take their work for retail houses to do it at a table of their own at home. There is one, I believe, somewhere about Drury Lane who does, but I never heard of any more.

FINISHERS, HOOKERS, &c.

To Her Majesty's Commissioners.

Hookers, &c.
Mr. H. W. Lord.

Gentlemen, Temple, March 1863.

I have the honour to send you the accompanying evidence, collected by me in Manchester, relating to the employment of children and young persons by "finishers" and "makers up," and also by merchants and warehousemen, who "make up" and pack goods upon their own premises.

While the proof-sheets of my report and evidence upon this subject were in my hands for correction, the House of Commons passed a Bill to amend the Bleaching and Dyeing Works Act (23 & 24 Vict. c. 78) by including "finishers" within its terms. The employment of children and young persons as "hookers" by "makers up" and by merchants is, however, still left unregulated; and the grievance complained of by the finishers, to which I shall presently refer, remains unremedied. I have therefore felt it my duty, notwithstanding the circumstance which I have mentioned, to retain the evidence as I originally forwarded it to you, although some portions of it may appear superfluous.

Number of hookers.

Whatever may be the exact number of the children and young persons who are by the amendment in question brought within the terms of that Act, it appears that they do not amount altogether to more than a fifth of those who "hook" for makers up and warehousemen or merchants. (Mr. Bentley's evidence, p. 149.)

The large number* of boys who are employed in "hooking," (which is a sort of rough folding of the piece of goods, incidental and preparatory to "making up,"† and performed entirely by hand labour,) would make any inquiry into the occupations of children in this district, which did not embrace them, incomplete.

Employers of hookers.

"Hookers" are employed alike by finishers and by merchants who "make up," as well as by "makers up and packers," who do not "finish" goods. Most of such employers have a certain number of boys for this purpose in their regular employ. Very many, however, get them as they happen to want them, and discharge them after a few busy weeks, until the next brisk season in the trade may arrive; these boys are said not to care for constant employment, and to prefer a frequent change of masters.

Age, nature of work, and wages.

In consequence of the present depression in the cotton trade, I have had comparatively little opportunity of seeing hookers at their work, and of examining them personally; the work, however, is so simple and so uniform as to render those opportunities, which I have had, sufficient for my purpose. The greater number are, as I am informed, over 13 and under 17 years of age; there are, however, many of about 12 years, and some younger than that, who in ordinary times are so employed. Many begin at as early an age as 10 to cut tickets or to do some other light work, and learn by degrees to hook.‡ The work is precisely similar to that of the hookers employed in bleach works, which are already regulated by Act of Parliament.

The hooking frame consists of two uprights with a graduated bar between them, at one end of which is a fixed hook; a second hook is fitted so as to slide along the bar, and thereby the frame is adjusted for the requisite width to which the piece is to be folded. The hooker stands to his frame, which admits of being raised or lowered to suit his height, and hooks the upper edge of the piece with his right hand, folding it rapidly to and fro upon the hooks. The hooking lads are paid sometimes by the piece, and sometimes by time; in most cases day-work and piece-work are combined, so that the payment is by the piece for all work beyond a certain amount per hour. Their earnings will probably average from 5*s.* to 7*s.* a week.§

Finishers.

The Court of Common Pleas having recently decided that the "finishing" spoken of in the 7th and 11th sections of the Bleaching and Dyeing Works Act, refers to the process of finishing which is incidental to those trades, and not to that which is carried on as a separate and independent business, that business appeared to fall within the scope of my inquiry, as one "not already regulated by law."‖

This decision seems to have taken the finishers of Manchester by surprise, inasmuch as I have been informed both by many of themselves, and also by Mr. Coles, the Sub-Inspector of Factories for this district, that nearly all of that trade had considered themselves to be within the terms of the Act above-mentioned, and had accordingly placed themselves under inspection.

Nature of material finished.

The material, upon which are performed the various processes of finishing, with which this evidence is concerned, is chiefly cotton cloth of one kind or another. The term "finishing" is obviously most comprehensive, and the several seats of the manufacture of various textile fabrics, as for example, of

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* The various estimates which I received from employers, as to the number of boys engaged in hooking, were so discrepant that I applied for some trustworthy statistics to Captain Palin, the Chief Constable of Manchester, from whom I have on several other occasions obtained much useful information and assistance. By his order inquiries were made at the various hookers and makers up "rooms," as well as from employers and from other sources available to the police. The result communicated to me by Inspector Buckley was, that in the usual state of trade, the number of hookers in regular employ between the ages of 11 and 17, is about 1,500; and that of those between the same ages, who hook at irregular intervals in times of pressure, will amount to 800 more.—H.W.L.

† "Making-up" is folding the cloth into the proper lengths for the market for which it is designed. See Mr. Bentley's evidence, p. 148.

‡ Mr. Peacock's evidence, p. 156.

§ See evidence of Messrs. Twitty, p. 152, Peacock, p. 156, Charlton, p. 157, Stewart, p. 158.

‖ Howarth *v.* Coles, 12 C.B.N.S., 139.

Hookers, &c.

Mr. H. W. Lord.

silk and of worsted, will probably have, each of them, their especial class of finishers. Worsted fancy goods are, however, in many cases finished in Manchester. The finishers of lace appear, as you are aware, to be at present expressly excluded from the operation of the Lace Factories Act, 1861.

Process of finishing.

The process of "finishing" as carried on in this district, varies according as the goods to be finished come within the class of "heavy," or that of "light" goods. In the case of heavy goods, such as moleskins or fustians, it consists mainly in stiffening and putting a nap upon the manufactured article; in that of light or fancy goods, in calendering, hot-pressing, and the like. These results are effected by machinery moved by steam power.

Age, occupation, and wages of lads in finishing.

The boys engaged in either branch of this business are seldom much under 12 years of age, most are over 13; their occupation consists chiefly in "tenting," or watching, the machines, employed for the various purposes above-mentioned; they have also from time to time to carry the pieces of goods from one part of the works to another, and to "wire" or fasten the end of one piece to another, in order to lead several consecutively through the machine. Their earnings vary from 3*s.* to 7*s.* per week. Females are not employed to any extent by finishers in Manchester; the few with whom I met were engaged in stitching the finished pieces, and were adults.

Hours of labour.

The usual hours of labour for lads employed by finishers vary from 12 to 13 hours a day, including the hour and a half for breakfast and dinner. These hours are likely to be exceeded to the extent of two or three hours, and occasionally more, at different times of pressure for as much as two or three months in the whole year. The finishers of the heavy class of goods seem to have longer hours in their ordinary work than the calenderers, but to be less liable to excessive overtime. In all establishments of makers up and of merchants, where a judicious system of management prevails, the hookers will probably be liable to no more, if not to less overtime, than the class of lads who tent finishing machines.

Effect of work on health.

The heat required in some processes of the finishing of heavy goods, and the dust or flue produced in that of "raising" a nap on the front or back of the cloth, are considered to be prejudicial to health. The dust in hooking the grey or unbleached cloth for the Indian or Chinese markets, to which material some houses confine their operations almost exclusively, is also said to be very hurtful.* Hooking is not in itself unhealthy nor fatiguing, unless the age of the child and the hours of labour make it such.

Steam power in warehouses, &c.

The use of steam-power in warehouses and by makers up is, in most cases, confined to working the presses by means of which the bales of goods are packed. None but adults are engaged in this work, which is generally carried on upon the ground floor apart from the rooms in which the lads in such establishments are employed. In one warehouse my attention was drawn to a calendering machine. I did not, however, hear of any other cases in which calendering was done upon the merchant's premises, and believe that, if any exist, they are rare.

Applicability of half-time system.

So far as the nature of the work is concerned, there appears to be no reason why both hookers and machine tenters should not work in relays.† The number under 13 years old is, however, comparatively small, and most employers assert that they would get rid of those they had under that age, as it is said was done when the Bleaching and Dyeing Works Act came into force,‡ to avoid the alleged inconvenience of school certificates, and of the other machinery of the Act.

The question would probably resolve itself into the simple one of the state of the labour market from time to time. With regard to that point, Mr. Coles has furnished me with the following information as to the increased employment of half-timers in the factories within the towns of Manchester and Salford and their immediate neighbourhood. At the commencement of the year 1859, the number of children so employed was, in round numbers, 1,350; at the end of 1861, they amounted to 2,140, an increase of 790, or more than one-half in three years.§

The average rate of such half-timers' wages is stated to be from 2*s.* 6*d.* to 3*s.* 6*d.* a week, or about one-half of a hooker's wage for full time. It seems, therefore, that the fear that an enforced system of relays, would, under the consequence of diminished earnings, deprive the trade of such labour altogether, may be ill-founded. A general Act‖ is, however, thought by many to be needed, if any be, such as should embrace all or a very great proportion of trades of every description, which furnish employment for juvenile labour in the same neighbourhood, inasmuch as in ordinary times, as it is, a scarcity of hookers is often felt.¶ A further objection urged to any general system of relays for hookers is the great probability, arising from the habits and necessities of customers, that the morning set would be idle, and the afternoon set over-worked.** It is, however, thought by others that the whole question of afternoon work and of late hours generally, resolves itself into the simple one of management, and that a good system in all cases gets rid of any necessity for irregularity or overtime.†† At all events the alternative given by the Factory Act (7 & 8 Vict. c. 15. s. 31) of working children full time on every other day and sending them to school on each preceding day, would obviate that difficulty, and, considering the nature of the work and the usual age of the hooker, would probably be preferable to the plan generally adopted in the factories, that, namely, of having two sets relieving each other in the same day.

Objections by finishers.

The chief objection on the part of the finishers to legislative interference is founded upon the alleged danger of foreign competition. Their opinions upon this question are expressed at some length in the evidence of Mr. Bentley and Mr. Williams (pp. 149, 150).

A point, however, upon which they insist even more strongly, is the necessity in common fairness of including "makers-up" and merchants in any Bill which should embrace "finishers" as a class, employing children and young persons. This is very strongly urged by Mr. Bentley, Mr. Goodier,

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* Mr. Peacock's evidence, p. 156. † Mr. Howarth's evidence, p. 151; Mr. Stewart's evidence, p. 158. ‡ Mr. Schofield's evidence, p. 147.
§ These numbers are exclusive of the half-timers, who may have been employed by bleachers and dyers since August 1, 1861.—H. W. L. ‖ Mr. Stewart's evidence, p. 158. ¶ Mr. Stewart's evidence, p. 158; Mr. Reid's evidence, p. 153.
** Mr. Reid's evidence, p. 153. †† Mr. Peacock's evidence, p. 156; Rowland's evidence, p. 154; Charlton's evidence, p. 157.

Hookers, &c.

Mr. H. W. Lord.

and Mr. Twitty (evidence, pp. 149, 152, 153). Such partial legislation would, they say, "restrict the "employment of boys by us in the very same occupation—the only one, or at least the chief one, "we have for them—which in the warehouse is unrestricted," that, namely, of "hooking," in which, according to Mr. Bentley, the greater number of boys employed by finishers are occupied; in which also for every one employed by them there are at least ten employed in exactly the same way by the warehouses and by the "makers up" and packers.

Objections by merchants.

After having visited the warehouses of Messrs. Barbour, Bros., Messrs. Pender and Co., and Mr. Sam. Mendel, and having obtained there the evidence which will be found at pp. 157, 158, and 159, relating to the employment of lads as hookers in large mercantile establishments of a similar nature to theirs, it appeared important to ascertain the views of some other of the leading merchants in Manchester with reference to the effect which legislative restriction would be likely to produce upon the general interests of trade, both home and foreign. Accordingly I sought and obtained the advantage of interviews with Messrs. Reiss, Bros., Messrs. Bannerman, Mr. Leisler (Du Fay & Co.), Mr. Benikè (Schunk & Souchay), Mr. Swanwick (A. and S. Henry & Co.), Mr. F. Turner, and Mr. Kessler.

Inasmuch, however, as these gentlemen desired that the opinions which they expressed to me should not appear as a part of the formal evidence connected with my report, I can only furnish to you what I conceive to be a fair collective statement of their views, though upon some points the opinions and the practice of some one of them differed from those of another.

It was generally observed by them that the hookers' work was not continuous, but that rests of five minutes, or so, were frequent; that in most respectable and well regulated houses the hours seldom exceeded, and often fell short of, 10½ in the day; that the work, being of an intermittent nature, afforded opportunities for education in slack times, of which many availed themselves, and that the interest of the hookers themselves required a power of working overtime in brisk seasons, by way of recompense, through greater earnings, for the deficiency when trade was dull.

All considered that restrictions were not needed and would be generally disliked; and that at all events the system of inspectorship, as applied to factories, would be needlessly vexatious in the case of warehouses. At the same time they allowed that, so far as the home trade was concerned, the limitations placed by the Factory Acts upon the hours of labour and the ages of those employed would not have a prejudicial effect. A similar opinion was entertained by most as to its practical effect upon the foreign shipping trade also, so far as their own establishments were concerned. The objection chiefly urged by those gentlemen, who formed the exception, was the danger of customers preferring foreign competitors on finding that an order could be executed more speedily by them than by an English house. The majority, however, considered that where a good system and proper management prevailed, and the size of the premises bore a fitting proportion to the work undertaken, a few extra hands would be sufficient to deal with the comparatively rare case of an order necessarily involving work beyond the ordinary hours of labour for its completion.

Observations on objections.

Upon the question of the loss of trade, owing to the supposed inability to complete shipping orders in time for the sailing of a particular steamer, I do not propose to enlarge, seeing that it has been frequently discussed at great length by those most competent to pronounce an opinion on the subject.

Education.

With reference to the opportunities of education, if it be true that such occur under the ordinary condition of trade in any degree at all comparable with those which the present distress unhappily furnishes but too generally, my inquiries have by no means satisfied me of the readiness of the hookers, as a class, to take advantage of them. I have, indeed, met with praiseworthy instances of employers who have in ordinary times encouraged lads in their employ to attend night-schools, or to form classes under the superintendence of some of the older and educated hands upon the premises; such instances may even not be rare, but I have no ground for supposing them to be common. The hookers in warehouses are, indeed, said to be somewhat superior to those who are similarly employed by finishers or "makers-up," and the greater chance of promotion among the former may well be, as it is alleged to be, the chief incentive to seeking in education credentials which are now generally recognized as giving their possessor a prior claim by giving him a higher value. This is the argument of the principals; managers and foremen, however, still speak of a very large, though perhaps diminishing, proportion of hookers who are yet unable to read and write, and whose moral and religious training has been wholly neglected.

So far as my own observation went, I found that, although the class of lads employed by finishers and others in the occupations before described, has, in common, it is said, with all the youthful population in Manchester, made great advances in education within the last 20 years, still a large minority of those whom I examined, of ages varying from 13 to 17, were unable to read; and as it is probable that, in the present state of public feeling as to the value of education, the worse educated hands would in times of depression be earliest parted with, an inquiry at a time when trade might be more flourishing would be likely to disclose a greater proportion of ignorance.

Hours of labour.

I can well believe that, as has been stated to me, the ordinary hours of labour observed in many of the largest warehouses in Manchester are from 8 a.m. to 7 p.m., and that the occasions, on which work is there protracted beyond 8 p.m., are not a dozen in the year; this fact may, indeed, show that restrictions are not needed, but it also shows that they will not necessarily be productive of the inconvenience which some anticipate. I have, however, little reason to doubt that if trade were to revive, hookers would be employed in not a few warehouses, and especially by "makers up,"* once or twice a week at least for 14 or 16 hours a day, whenever a vessel happened to be starting for a port which had not the advantage of frequent and rapid communication with this country.

* Mr. Barton's Evidence, p. 155.

Hookers, &c.

Mr. H. W. Lord.

Carriers' arrangements.

It is, moreover, very doubtful whether any mere management or individual effort within the trade would, of itself, be able to withstand the pressure of the foreign shipping business at various seasons, were it not for an extraneous force which, in the form of a combination of workmen in another employment, indirectly but materially affects the hours of labour in this. In proceeding to point out to you the controlling influence to which I refer, it is only just to remark that employers of labour in Manchester seem to have of late years become more fully alive to the cruelty, the costliness, and the needlessness, of excessive overtime.

To produce this wide-spread change of practice, as compared with that which prevailed here 20 years ago, the now generally acknowledged success of the Factory Acts, so far as their main principle is concerned, has, no doubt, been instrumental.* In the particular business to which these remarks apply, the desire to curtail overtime has been materially assisted, in developing a system of regular and reasonable hours of labour, by the arrangement recently adopted by the carriers in Manchester, under which no packages are received for Liverpool after 8 p.m., nor for any other place after 6 p.m. This plan, which, however, does not affect the finishers so much as the makers up and merchants, has been working for nearly two years, and competent judges † have assured me that the circumstances of the trade since that time have been such as to give ample means of testing its practical effect, and that the result is eminently calculated to render the long hours of night work, which were general before that time, both needless and impracticable for the future.

This arrangement will, doubtless, affect in a similar way other trades in Manchester, in which the liability to late orders pressing for immediate completion has been alleged to necessitate long hours of overtime. Inasmuch, however, as this is the first occasion presented to me of obtaining the opinions of experienced persons upon the matter, I have thought it advisable thus at some length to bring the evidence upon this question under your notice.

I have the honour to be, &c.
HENRY W. LORD,
Assistant Commissioner.

To Her Majesty's Commissioners.

Thomas Schofield.—I am one of the partners in the firm of Joshua Schofield and Sons, fustian shearers, dyers, and finishers, Commercial Mills, Cornbrook. The chief portion of our business consists in "finishing" and dyeing certain descriptions of heavy cotton goods, such as fustians and moleskins. The processes comprehended under the term "finishing" vary very much according to the nature of the article to be produced. All dyers are likewise finishers, but the converse of that does not hold good; the finisher's is a trade distinct from that of the manufacturer, and may be, and frequently is, distinct also from that of the bleacher or dyer, and is very often carried on in premises where no other work than that of finishing, properly so called, is done.

The Court of Common Pleas have recently decided that "finishing works" of such a class do not come within the meaning of the Bleaching and Dyeing Works Act, 1860. This decision is a great evil, and works great injustice. Before it all the "finishers," whether they happened to have bleaching or dyeing works on the same premises or not, considered themselves, and were treated by the Factory Inspectors, as under that Act.‡ As it is now, however, persons like ourselves, who do both our dyeing and finishing at the same works, are subject to all the factory regulations as to the employment of children and young persons, while finishers who neither dye nor bleach, or who happen to have their finishing works separate from the rest, can employ such persons at as early an age, and for as long hours as they like, without any restriction or regulation of any kind.

And yet it is in the finishing department of our works that nearly all the young persons who work for us are employed, and there, too, the nature of the occupation is more decidedly injurious, and the liability to excessive hours of work more general than in either of the other works before mentioned.

There is a class of finishers who limit their work to the calendering of light fabrics. So far as the hours are concerned, they are as irregular as the other; but the branch to which I particularly refer, as being positively injurious to health, is the finishing of that class of moleskins called "selfs" or "natives," native colour, that is, and goods of that kind.

These undergo no dyeing process whatever, nor are they cut as fustians; they pass immediately from the hands of the manufacturer to the finisher; by him they are first dried by being passed between hot cylinders; at this point in the process many lads are employed; we have a number of ages from 13 to 16. Before the passing of the Bleachworks Act we had some under 13, but when that came into force we discharged them,§ as we did not want half-timers. These lads are engaged in watching, "tenting" the machines, and in "wiring" the end of one piece on to the beginning of the next, and unwiring when the joined part has passed through.

There is nothing, however, in this part of the work especially deleterious beyond the heated atmosphere, which is common to the mill rooms also, and makes them looks pale and sickly, as the factory hands do; but that alone, when the hours are, as they often are, from 6 a.m. to 10 p.m., is very bad.

The next process is that of "raising" and "perching"; this is very injurious, especially the latter, which is in effect raising on the back, just as "raising" by itself means raising on the face of the cloth. A "nap" or "pile" is produced on the cloth by passing it through a machine fitted with wire cards on revolving rollers; this is termed "raising." There is a deal of cotton dust and flue occasioned in "raising," but in perching there is more of that, because being on the back it tears the warp, which is heavier, and, moreover, the warp threads have been stiffened, generally with size flour, or China clay, or some such material that mixes with the flue.

At this many lads are employed of ages from 13 to 21; they have chiefly to take care that the piece runs straight through the machine. That is likewise the extent of their work, both in the next process, that of stiffening, and also in the subsequent ones (in the case of moleskins, that is), those of re-raising and shearing. That is far the worst of all, for there is far more dust. This stiffening is not, as it is with fustian after perching, a mere back-coating, so to speak, of paste laid on

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* See Evidence of Mr. Crooke, p. 155; Mr. Schofield, p. 147. † Mr. Barton's evidence, p. 154; and Mr. Crooke's evidence, p. 155.
‡ Mr. Bentley, Mr. Twitty, and Mr. R. J. Howarth, among others, confirmed this statement.—H.W.L.
§ The same course was adopted by many, both dyers and also finishers, among whom I may mention Mr. Bentley, Mr. Goodier, and Mr. R. J. Howarth, who informed me that they had done so.—H.W.L.

Hookers, &c.
Mr. H. W. Lord.

to give resistance to the cutter's knife, but is pressed into, and actually incorporated, as it were, with the material. In the stiffening process there is nothing objectionable beyond the great heat necessarily applied with the bowls or cylinders which lift and press in the liquid. That, however, is composed of water and flour, if not of some more injurious compound; and in the process of re-raising, in which both face and back are carded, the dust which arises from the cloth, into which this stiffening has been dried, is very bad.

In the shearing, which bears to moleskins the same relation that cutting does to fustians, a portion of the "nap," which has been "raised," is taken off. The lads who are on the shearing machines are generally older. There is nothing prejudicial to health in that work. Serious accidents are rare; a boy will be sure to get a nip of his fingers, more or less, before he has been very long at it; that is the case to some extent wherever machinery is used; for through curiosity or carelessness a boy will always get some damage if he can; but indeed fencing, so far from being a protection, would make our machinery much more dangerous. For that immense quantity of flock which you see, instead of being spread about as it now is, would be collected just about the wheels, and be liable to catch fire; even without that, the other day, one of those wheels sent a spark out on the flock, and the whole room was a blaze in a minute; it would have been far more difficult for the men to put that out if the wheels had been boxed. We are, however, specially exempted from the provisions in the Factory Acts as to the fencing machinery; a great deal of evidence was given on the former inquiry into the bleachers and dyers upon this point.

We should suffer very much, if times were good again, and much overtime was being made in the finishing trade, and for this reason, that our lads would leave us for the sake of earning more wages by working overtime in the same kind of employment elsewhere.*

We have our busy seasons; the period at which we are most busy is the three months of August, September, and October, next to them comes February, March, and April; in the rest of the year our work is for the most part slack, but the periods differ somewhat for the different markets, the Australian, American, home, and continental; it was that liability to periodic slackness that was one cause for the introduction into the Act of the words "or fluctuation of trade," to enable us to work up to 8 p.m., in recovering time so lost.

Finishers of light goods and "makers up" are more exposed than dyers to the pressure of sudden orders, and especially the latter class, but the carriers' arrangements at present protect them from excessive overtime.† I believe if all the mill owners and others under regulation were set free to work as they liked, they would all—all Lancashire would say, "we do not want overtime, and can do without it."

Dyed goods have often to be stiffened and re-raised, but I do not consider there is anything detrimental to health in that process. In fact, all the processes for undyed goods are more unhealthy than those for dyed goods; there is always so much dust.

Finishers often have very short notice; for goods can be finished in two or three days, and the merchant who, himself pressed for time, frequently buys on commission for export and wants to send an order out by a certain packet, will go where he can get his business done quickest, and that will be where they can work longest.

Now, all our trade is very slack. If business were brisk we, individually, should be in a very awkward position. If, for instance, the American war ended, we should not know where to turn; we should want to work at finishing for 3 or 4 days a week from 6 a.m. till 10 or perhaps 11 at night, but could not, because we are under the Act; and yet all the boys whom we employ, except perhaps one or two over 16 in the dye works, are engaged in that branch of work, while other finishers, who do not dye or bleach, employing younger children at more deleterious work, do so at all hours, and for any length of time, with impunity.

Last June twelvemonth we were very busy, but then the Act was not in full operation, so we were able to compete by working longer hours.

I had a good deal to do with the framing of that Act, and I know that the words "or finishing," in clause 7 ("any process previous to packing . . . in "the occupation of bleaching, dyeing, *or finishing*"), and "or finishing works" in clause 11, were intended to comprehend finishers, whether bleachers or dyers, or merely finishers, and no more.

Mr. James Bentley, 28, Deansgate.—Our business is that of calendering, stiffening, and general finishing; ours is the most comprehensive of any finishing house in the trade, for we have raising and stiffening machines, and do the heavier class of finishing as well as the calendering, the lighter class, sateens for instance, and also the whole business of making up, including hooking and plaiting, exactly as it is done in the warehouses.

It is in that portion of the work that the boys we have are chiefly employed. The total number of our hands at present is only 58, and of those there is but one, the office boy, under 13; there are 14 between that age and 18. We should have quite one-third more if trade were brisk, and the increase would be mainly among those between 13 and 18.

Our work requires a stout big boy, at all events for the plaiting or "making up"; he must be able to stand up to and reach over the table. And for carrying off the pieces of cloth from the drying machine to the calendering machine or to the "plaiting" table some strength is required. The hooking frame can be adjusted, indeed, in some measure to suit the height of the hooker, but a small or weakly boy of 13 or under could not hook heavy goods. We have plaiting machines, but most is done by the hand; the merchants do not generally trust to its measurements, so that all the goods that can be hooked are generally done so. Speaking generally, our boys have nothing to do directly with machinery, and beyond the mere getting their fingers nipped now and then, accidents never happen.

We pay them all ourselves; some are apprenticed, not often before 16; they generally serve their time out, going on after they are of full age. There is a "makers up" club, which would compel them in the interest of the trade union to serve their full time.

Our usual hours are from 8 a.m. to 8 p.m., when we are working full time, but now we work only from 9 to 4½. Trade has been bad for the last 2 years. In busy times, from July to October is our brisk season. Then we used to work at times till 10 p.m., but scarcely ever later; that was to finish orders for foreign markets, where the season came only once a year, and the merchants would generally drive their orders to the latest moment. Then they come to us to finish in a hurry, in time to catch the next packet, and we have to do so at the peril of having the goods invoiced to us if they miss the packet by our delay.

When it was thought that we should be prevented by the Bleachworks Act from working overtime, a great number of the merchants, for whom we used to "make up" as well as "finish," took the making up into their own hands, and had it done in their warehouses, either laying down capital in hooking frames and the like, or letting out all their "making up" to one or more persons, to be done on their own premises for a contract price; in either case acting from the fear that the finishers, being restrained from employing young persons over the factory hours, would be unable to execute those orders for sudden shipments.

* See also evidence of Mr. Twitty, p. 152.
† See evidence of Mr. Twitty, p. 152.

241

Hookers, &c.

Mr. H. W. Lord

Now that this is once done, they will not come back again to us, for they say, "although you are not, after "all, under this Act, you will be sure to be put "under one soon." But the fact is that, under these circumstances, for every young person employed by us, there are at least 10 employed in exactly the same way by the warehouses, and by the packers and makers up. That is, in folding the cloths into various forms for the various markets, for that is what all this hooking and plaiting, and the several sorts of making up really amount to.

The result is that, since the passing of that Act, we have had, comparatively speaking, nothing in the way of making up from the warehouse. Here for instance are goods from a house, for which we used before the Act to do all the making up ; and now we have only to dry them.

I do not think that, if the trade were brisk again, there would be the same necessity for long hours that there formerly was. The principal finishers have doubled their machinery in anticipation of the Act embracing them ; the outlay was enormous and there has been no return.

If a half measure were adopted, and finishers included within the provisions of any Act, while processes of the nature of those that are now carried on in the warehouses remained exempt, many of us would have two establishments, one for calendering and stiffening, &c., and one for "making up," entirely separate from each other ; we could, as it happens, make our premises into two perfectly distinct works by a very little trouble ; but that would be obviously very unfair for others, who have not those facilities, besides entailing on us the labour, time and expense of carrying, if even across the street, from one place to the other ; and beyond all that, the very branch of our business most requiring restrictions on the hours of juvenile labour* would by such a contrivance be rendered independent of all compulsory regulation.

Our work is not very fatiguing and is certainly far less monotonous than mill work is. I think, if we are to be under regulations, it would be a good thing for the limit to be 16 instead of 18 years of age ; there is no advantage in keeping stout lads till 18 from the sort of adults work in overtime that they have in our trade.

The hours 8 a.m. to 8 p.m. would suit us better than 6 to 6 ; the former would give us the two hours in the evening for what so frequently occurs, the order late in the day to be finished for sending off by the next morning : and besides, we cannot get them ever here at 6 a.m. ; we have made 3 trials and failed. I doubt whether compulsory closing at 6 p.m. would bring them any earlier. I can't quite say what the cause is : but I am sure that drink is the cause of half the troubles of Lancashire. I am no temperance advocate or total abolitionist, but I am convinced that a Maine liquor-law would be the greatest blessing that could befal the Lancashire operative. When we are on full time half our hands will be away all Monday, and on the Tuesday will come in late with "I had a drop too much over night "and thought I should not do anything if I came "yesterday."

I have never been opposed to any reasonable restriction being put by the Legislature upon us, if only it be equal in its bearing on all who employ juvenile labour in the same manner and for the same end as ourselves. Indeed, I gave all the assistance and information in my power to the Commissioner who was here collecting evidence for the Bleachers' and Dyers' Act in 1859 ; and am equally ready to do so now ; for on the whole I believe that an Act, which should include finishers of every class of goods, light or heavy, whether the process be absolutely or relatively final, and whether the work be conducted on "finishing works," strictly so called, or on any other premises, warehouses or not, used by makers up and packers for the purposes of their business, would be very beneficial to the hands, and not ultimately injurious to the employer.

There is however one point to which very serious consideration must be given ; the effect, namely, of such restrictions upon our power to compete with foreign rivals. That rivalry is becoming daily more and more oppressive ; large consignments of superior machinery is being constantly despatched to various parts of the continent,* and especially to Germany. The labour there is cheaper ; the expenses of maintaining large establishments on foot generally less ; and they work under no restrictions of hours or age. As things are even at present we are affected in this way. The tariff on finished goods is very high, whereas grey goods go in free or at nominal duty. We frequently have an order merely to raise a nap on goods in the grey, which are then sent over, passing at the nominal duty as being still "in the grey," and are bleached, dyed, printed, re-raised, calendered, made up, and whatever subsequent processes be requisite, abroad and not in England.

It is also to be borne in mind that our machinery is of a very heavy kind, and is not like the case of a loom in a factory, where all the rest go on, though one be disabled. With us a break-down is much more serious, and involves a delay of days. We have now been at a stand-still for 3 days in consequence of an accident.

With reference to what I have said about the extent to which children are employed as "hookers," by persons who are not finishers I find, by looking over the list of names in the Directory, that to my own knowledge there are 35 "makers up and packers" to 13 calenderers, who all make up and pack ; while out of 650 merchants whose names appear, at least 150 employ "hookers" in their warehouses, and if you take an average of 12 boys to each warehouse, at one time or another, you will be below the mark. Whatever the actual number of lads employed thus in the warehouses may be, I am quite confident that the 13 calenderers do not employ, in all their processes, one-tenth of that ; and the finishers of heavy class fustians who have not also bleach or dye-works, are about as many as the calenderers.

George Holt (at Mr. Bentley's).—Am going 15. Have been here three years ; used to "carry," but am beginning to hook now. Have been all my life to Sunday school, and go to night school now. Can read and write. It is very tiring work ours, when we are on full time.

John Smith (at Mr. Bentley's).—Am going 14. Can't read. Never went to any day or night school. Have been to Sunday school sometimes. Was here before for 12 months. Worked then from 8 to 8 ; that was 2 years ago. When I should have had to be a half-timer, they sent me away ; and as soon as I was 13, I came back.

Henry Lockett (at Mr. Bentley's,).—Am going 15. Have been here two years ; was in dye-works before ; go to Sunday school ; used to go to week-day school once ; can't read now. When I first came we worked from 8 a.m. to 8 p.m. ; never longer that I recollect. My work is to carry the piece off from the machine to the plaiting table ; if I am not at that, I am "hooking." I used to be very tired at the end of the day when we were on full time. I get away from work at 5 p.m. now, and could go to night school, but I have no clothes fit to go in.

[This very general excuse, I was informed, was in this, as in most cases, a mere excuse.]

* See also Mr. Goodier's evidence, p. 151.

* Mr. Twitty and Mr. Goodier expressed very similar opinions to me upon this point. See also Mr. Williams' evidence, p. 150.

Hookers, &c.

Mr. H. W. Lord.

Mr. H. Williams (Cable-street, Salford).—I and my brother are fustian-shearers and finishers. We have also calendering works in Manchester. At present only 50 hands are at work, all males, five under 13, and four between that and 18, only one of the former is under 12. In consequence of the slackness of trade, we have not our usual complement of children and young persons.

We usually work 62½ hours a week : Monday, 7 a.m. to 6·30 p.m.; Saturday, 6 to 1 ; and on the other days, from 6 a.m. to 7 p.m., with an hour and a half for meals. We very seldom work after 7 p.m., and then at most for an hour or two, and not all the hands. I should say that, during the last three years, we have not worked overtime on more than 30 occasions, and on those occasions not later than 9 p.m. We were very busy for three months at the end of the summer of 1857, and may have worked later then. I recollect that in the busy time of 1859, we never lit up at night ; so we could not have worked much after 8 p.m. Some of ours began then as early as 5 a.m.; they were the older hands.

We often have to deliver an order on the same day on which it comes in ; that involves some overtime in some cases ; but we generally use our own judgment, and, as often as not, keep them a week or two over the time for which they are ordered ; for I have known them lie for a month in the warehouse, after we have been pressed to deliver them on an early day.

Some of our machinery is certainly dangerous, and requires fencing ; the upright shafts should be boxed as this one is ; and there should also be some contrivance at the back of the raising machines, like these screens, "flock-boxes," they are called ; not only to keep the dust in, but to keep off the boys who are often playing round and might get caught. I think also that, for machines like ours, "strap-levers," or guides, are absolutely necessary ; the straps should never be taken off the pulley by the hand. I know of one case at another concern, where a young man who was doing so had some of his fingers taken off. Every employer who has any self-respect ought to guard his workpeople as much as possible against the risk of accidents.

The dust is also very disagreeable, and it may be unhealthy. There, again, many don't seem to care what the atmosphere is in which their hands have to work. I have seen rooms filled with the steam off the drying cylinders, making every one damp and miserable, because the employer would not go to the expense of having a "hopper" like this put over the machine to carry the steam off through the roof.

But as to the dust, I can find nothing to answer. I have tried "hoppers" with chimneys, and a fan also, but with no success ; our machine can't be worked covered, as the blowing machine in the factory can.

The bulk of our work is in swansdowns and twills for linings and such purposes ; these are lighter goods than moleskins, and therefore require more stiffening ; so that in the raising, and especially the re-raising, of them, there is much more dust. A great deal, however, depends on the finisher ; if the stuff for stiffening is not properly boiled, it will not bind in the cloth ; and the dust, therefore, is worse than it otherwise would be.

I pay all men and boys by the number of hours they are at work, except the foremen, who get their wages, work or play. With the rest, it is a rule-of-three sum : if for 62½ hours say, 5*s*., how much for whatever time thay have been ? But I find, in slack time, the work does not get off ; it sticks to their fingers ; the more they have to do the faster they do it.

I am afraid you will find them very ignorant and uneducated ; many are Irish. I expect, even if their parents sent them to school, they would not go. I don't think relays will work ; they won't come for half-pay ;* they would sooner hang about the streets. Their parents have scarcely any control over them as it is, and if the earnings were reduced one-half, they would have less motive for exercising control at all.

To return for a moment to the "dust," I should tell you that our neighbours have complained of it coming on them through our windows. One says his water-spout has been blocked up by it ; that I think is fanciful. You see a thick coating on that opposite wall, but that is the accumulation of some 20 years.

Our business is to finish cloth which the Manchester merchants purchase from the manufacturer or maker, and in consequence our hours of labour are very irregular, as we can only work when the merchant buys goods to supply the wants of his customers, to replenish his own stock, or in anticipation of an advance in the market. We cannot, like the manufacturer, work on stock. Therefore at certain times of the year we are not half employed. The work is not of a tedious or laborious character. It is not so monotonous, nor does it require such undivided attention as factory labour. Coupling these facts with the reasonable hours in which we employ "children and "young persons" (and especially as we do not employ females), we think legislation quite unnecessary.

We think, if "children and young persons" are to be legislated for, the Act ought to apply to all trades and professions, as well where machinery and mechanical or motive power is *not* employed, as where it is. That it should also extend to all hands employed by Government, and even to the Queen's printer, who (if we are rightly informed) needs legislation as much as anyone.

By partial legislation, masters will, as much as possible, set their minds against employing "children "and young persons." Adult labour will not be to be had to supply their place. Its scarcity will increase its value, and we shall find ourselves at a disadvantage with our continental neighbours.

The earnings of children will be much missed by their parents ; or if masters are compelled to employ children because of the scarcity of other labour, is it not probable that in consequence of their being only half-timers, there may eventually be even a paucity of these ?

As regards children, it should not be forgotten that in some trades relays would be impracticable.

At all events, if legislation should be deemed necessary, we would suggest that 16 years, and not 18, be the limit of age for "young persons," unless for factories it should be thought otherwise.

With reference to foreign competition, I can name you ten countries where general finishing is extensively carried on, and to which, for some years, English machinery has been extensively shipped, and English workmen sent to teach the various branches. I am not able to say to what extent the business is carried on there, but I believe it to be considerable. We may judge of the quality of the work done by what we have just seen in the International Exhibition.

The countries to which I refer are France, Spain, Prussia, Belgium, Holland, Hanover, Russia, Austria, Portugal, and America.

One of our workmen was employed two years ago in a Prussian factory. They had 1,500 hands, he says, and worked regularly from 5 a.m. to 7½ p.m., with 1 hour 40 minutes for meals, which were had on the premises ; and till 6 p.m. on Saturday. They calendered and finished, as well as made the goods.

John Buck.—Am going 14. Have been at Mr. Williams' here 2½ years. Can't read. Have never been to day or night school ; go sometimes to Sunday school. Father is a shoemaker ; I watch the machine; leave off work by 7 p.m. Don't know whether I could go to night school afterwards ; know nothing about them.

Joseph Lundia.—Am 17. Have been at Mr. Williams' this time for a few weeks ; was here for 8 months 2½ years since ; never stayed here later than 8 p.m., and not often so late. Can read a bit.

* See evidence of Mr. Howarth, p. 151.

Hookers, &c.

Mr. H. W. Lord.

Joseph Waling.—Am going 14. Have been here working for Mr. Williams about 3 years. Go to St. John's night school 3 times a week ; used to go to Sunday school a year ago ; have no clothes to go in now. 12½ hours is the longest day I ever made here ; that was many months since.

[This witness knew his letters but no more ; of 3 others who could read tolerably, 2 had been half-timers in a factory and learnt, they said, in the school there.]

Robert Howarth.—I am a finisher of fustian and such goods ; my business is much the same as Messrs. Williams', whom you have just seen in Salford. I have 87 persons all males now working for me ; trade is miserably dull ; there is not full work for all those, but I spread it over as many as I can ; in ordinary times, such as were 18 months ago, I should be having about 30 more.

Of those that are here 38 are between 13 and 18 years of age ; only 3 are under 13, and they are over 11 ; 2 are sons of men in my employ ; I don't want any under 13 and would not have any if we were under the Act ; still there is nothing in the nature of their work to prevent relays answering, they chiefly have to watch the pieces through the machines, and to wire one piece to another.

What they earn is about 3*s.* a week for such work, that is boys from 11 up to about 14. I think they and their parents too would rather have them hang about the streets for what they could pick up, than come as half-timers for 1*s.* 6*d.* They are chiefly children of the low Irish ; they don't stay with me any length of time generally. I don't look on them at all as a nursery for skilled adult labour ; why, when we are on full time there will often be a score short on a Monday of those we paid on the Saturday ; we have at least 10 fresh ones every week ; for the others are off after something else, or after nothing but play. The boys of 14 are masters of their parents and do as they please ; they are loose characters in our trade, and don't like full time ; 3 or 4 days a week is enough for them.

Our hours are from 6 a.m. to 6½ p.m. when on full time, now they often give over at 4 p.m. ; I don't suppose we have ever worked as late as 8 p.m. for more than a night or two at the end and the beginning of the month during the last 3 years, except to regain time lost through an accident to the machinery which kept us at a standstill for a fortnight, so we had to make that up ; they have from 8½ to 9 for breakfast, and from 12 to 1 for dinner. We can manage to be regular, because all our work is for the home trade and not for shipping orders ; we are generally more busy for the last and first weeks in each month, but there is never so great a pressure as to necessitate working overtime to any extent.

I never heard complaints of the dust being bad for the health ; it is not so bad as the skutching in a factory ; some of our hands have been at the work 30 years. We have had accidents now and then, but all have arisen through the boys carelessness in playing about, and not in the due course of their work. They will have some of them to shift the strap off the pulley with their hand when they want to stop, there is always a man over them, who looks after 2 or 3 of the machines at once.

Some of our machinery is very heavy and works at great speed ; the regulations of the Bleach and Dye Works Act would not make much difference to me if I were under it ; but I don't want inspection, I think we can best take care of ourselves.

There is, however, a great objection to our having to provide a surgeon's certificate of age for such a fluctuating set as we have here. The Factory Act renders the certificate valid only at the factory for which it was originally obtained ; but if I had to pay the surgeon's fee for every fresh hand I had, I might as well shut up the whole concern at once.

I have tried to get the employers in our trade to agree not to take hands from one another without a character, or something of the kind, from the concern they left, so as to keep them more steady to one place, but they would not somehow come in to it.

Mr. Goodier.—I am a member of the firm of Goodier, Krauss & Co. We carry on the business of finishers in these premises in Cross-street, and have another set of premises over the way, where only making up and packing are done, in fact, the ordinary warehouse work. We are also dyers ; but as our dye-works are in another part of the town, we are not within the Act of 1860 as regards these finishing works.

Here we have 77 persons; 13 are under 18, but none under 13 ; all males. Our finishing consists in calendering, making up, and packing light goods. If the trade were not so slack we should have 40 or 50 more hands.

Our usual hours are from 8 a.m. to 8 p.m. in the 4 winter months, and from 6 a.m. to 7 p.m. the rest of the year. The youths in our employ have not unfrequently to stay later than that ; occasionally even as late as 12 p.m. ; for 2 or 3 months perhaps they will be here till 10 p.m. The spring and autumn are our busiest times. They have regular meal times ; 2 hours in summer and 1½ in winter, when they get breakfast before they come.

Their chief occupation is in the making up and finishing department ; where they "hook" the goods, which have been calendered preparatory to "making them up" for transmission in bales or otherwise. The hooks are sharp only at the points ; I don't think they complain of sore fingers through pricking ; their feet are more likely to get sore with a long day's work, for it is all done standing at these iron uprights, as you see ; the cross-bar is graduated ; one hook is fixed, the other slides on the bar, so that the piece may be hooked for folding into any length not exceeding the space between the uprights.

The youngest we have is 14 ; all can read and write more or less. We always choose the best educated for apprentices, and that acts as a stimulant ; for there are always five or six names on the books waiting. They pay no premium, but we generally put them on for a year or so beforehand to see if they will do.

With regard to putting us under restrictions as to night-work, it must be recollected that there is a wide difference between our case and that of the manufacturers and millowners ; they can work stock in regular hours, and are independent of sudden orders, varying from day to day in number, extent, and the degree of despatch required ; we, on the contrary, are wholly dependent on such orders.

We are workers for hire. A London or Liverpool merchant buys goods, frequently on commission, for some foreign or colonial correspondent, or to export at his own risk. To be first in the market is all important ; especially in the case of a season trade. He has them sent from the manufacturers dried to us, to be got ready for shipping. Sometimes that includes merely packing, sometimes calendering, and glazing that is, embossing ; at other times dyeing also ; whatever it includes, they seldom give us much time to spare. And often the haste is not the fault of the merchant here, our client ; he has instructions from his principal, which he can scarcely get done in the time. Only two days ago, for instance, a foreign merchant had a commission to send out an order, which had to be delivered on board the steamer at Southampton two days after he received his advices ; there then was some difficulty in meeting with what he wanted to purchase. He had just time to send the goods in to us at about 4 p.m. for making up and packing, so that we might get them off by half-past six the next morning to catch the packet.

Hookers, &c.

Mr. H.W. Lord.

I am aware that these arguments were used to no no purpose by those who opposed the passing of the Bleach and Dye Works Act. I myself was consulted by Lord J. Manners and others on that occasion. Those, however, if there be any such, who appeal to the working of that Act in proof of the futility of those objections, are in error. That Act is not even yet in full operation; and ever since August last year, at which date it began to be partially operative, there has not been one quarter of the usual work in the trade. I mean that no one can have been so pressed as to make the restrictions on the hours of labour felt to be seriously inconvenient.*

It is true that in our own markets it would be the same for all; but take, for example, the light class of goods which we finish, Belgium, Spain, and France compete with us to a very appreciable degree as it is, and under no restrictions.

At all events any legislative interference ought to include all branches of the same business. Take our own case; as it happens we could, without much inconvenience, have all our packing done on our other premises over the way; but, if we had not that resource, an Act, which should include finishing works within the Bleach and Dye Works Act without including warehouses, in which hooking, plaiting, and making up, or, in one word, packing, are carried on, as is almost invariably the case, by youths from 14 or so to 18 and 20, would restrict the employment of boys by us in the very same occupation—the only one, or at least the chief one we have for them—which in the warehouse is unrestricted

In the original bill of the Bleach Works Act, words were introduced to comprehend "packing," but they were struck out. I think that now the members of the Houses of Parliament know more about the matter, and would not legislate partially. If the warehouses, in which making up and packing are done, were included, I should be satisfied.

Mr. Twitty.†—I am a partner in the firm of R. Charlton and Sons; we are calenders, finishers, makers up, and packers. Ours is, I believe, the oldest house in Manchester, engaged in that business.

We have at the present time 80 persons in our employ, of whom 30 are under 18: none are under 13. When the Act of 1860 was passed, we had only one under 13, and he was within a few days of that age: we have not had any since. We want strong boys for our work, it is seldom that any under 13 are of much use: those of them that are less able to stand the work of hooking we employ in "stitching," (fastening the folds of the pieces when made up,) but all will get the same wages, from 5*s.* 6*d.* to 7*s.* a week. We pay them ourselves in all cases. I should say that hooking was more laborious than carrying, for though the pieces they have to carry may vary in weight, it is not a continuous process as the former is, as when they have brought it to the making up table, they rest or sit down till the next lot is ready to be taken from the machine; the time they rest, will of course, depend so entirely on length of the piece, and the time which that takes in passing through the machine, varying as it does with the quality of the fabric, that I can give you no average of the number of times a carrying boy goes backwards and forwards in his day's work.

Our hours are now from 9 a.m. to 5 p.m., when on full time we work from 8 a.m. to 8 p.m., allowing 1 hour for dinner and ½ an hour for tea: we have not unfrequently had to work overtime to get a pressing order out for shipment the next evening, but scarcely ever later than 10 p.m. During the last 2 years, I should say we have not worked half a dozen times after 10; late working is more costly to us than the usual working hours, as the overtime pay is always in excess of the ordinary rate of wage.

There has been of late years an arrangement in Manchester which has indirectly done a good deal towards the abolition of night work, I mean that of the carriers not to take goods after 8 p.m. for Liverpool, and 6 p.m. for London.*

If we are to be brought under any Act of Parliament, I think in justice to ourselves and others engaged in the same business, that warehouses where the same class of juvenile labour is employed should be included, as most of them hook and "make up" for themselves, and it is in the hooking and making up branch of our business that any number of lads to speak of is engaged. I have known of cases where our own lads, when we closed early, at 7 perhaps, have gone off the same evening to hook in a warehouse. If we were busy now and under the Act, we could not execute our orders fast enough, and must either refuse or disappoint our customers, if we could not work overtime, many of the goods would be sent abroad in the unfinished state, and an impetus would be given to the enterprising foreigner who might feel disposed to establish himself in competition against us. This of course applies to the export trade only, but it is in that that nearly the whole of our work consists.

William Atkinson (at Messrs. Charlton's).—Am 17. Have been here 5 years; used to work when I first came till 10 and even 12 p.m. at times: once or twice as late as 2 in the morning. Have never been to any but Sunday school. Can't read.

Henry G——— (at Messrs. Charlton's).—Am 17. Have been 9 years in the trade; work now at the stiffening machine, "tenting;" have been a hooker and "carrier off"; what I am now at is the easiest, the lightest, that is: carrying is the hardest of all, I think, most tiring I mean. I can't read.

Mr. R. J. Howarth (4, Jackson Street).—I am a maker up and finisher of light fancy goods, such as de-laines, lenos, and chenées; some of them are merely hot-pressed, made up, and packed by me; others are also sheared; but that shearing is very different from the shearing of heavy goods, such as moleskins. There is scarcely any dust, and the work of the machines is so easy, that in one place in Manchester they used formerly to be tented by girls from 12 to 20 years of age; these are tented by boys, as is generally the case now. That and hooking are the only employments for which I use young persons.

Most of those whom I employ can read and write. When there is a special pressure, and I have to get extra hands, they will probably be more ignorant; but the greater number of those who work for me are permanently in my employ.

Whatever the age might be under which the employer should be obliged by Act of Parliament to see that they went to school as half-timers, I would, if possible, employ none under that age. The inconvenience is so great.

Our usual hours here are from 6 a.m. to 6 p.m., with 1½ hours for meals; but we are just now working as long as ever we can, often till 10 p.m., not later; when things are brisk we keep working till 8, and at times till 10 p.m., for as much as 3 months in the year. The carriers' arrangements make little or no difference to us. Our customers give us orders to be completed by a certain time, and we must get them done.

There is very little of silk finishing in Manchester;

* On similar grounds Mr. Twitty and several others informed me that, in their opinion, that Act had not yet been tested sufficiently.

† Mr. Twitty's opinion upon many points I found to coincide with those expressed to me by Mr. Bentley and Mr. Goodier. In such cases I have, in order to avoid needless repetition, added a note in their evidence to that effect. With the same object I have in other cases adopted a similar course.—H.W.L.

* I had abundant confirmation of this statement, as well, among merchants, from Mr. Stewart, of the firm of Messrs. Barbour and Brothers, and Mr. Peacock, manager of the warehouse of Messrs. J. Pender and Co., as from Mr. Davis, Mr. Barton, and Mr. Ashworth among the "makers up."—H.W.L.

the tendency is naturally for the finisher to settle about the place where the goods are produced. You will find silk finishers in Macclesfield, and worsted finishers in Bradford, for example. I probably have as much worsted as any finisher in Manchester. There are several other worsted finishers; but I only know of two silk finishers here, and they, I believe, employ only men, and merely calender and make up.

Mr. Reid (37a Dickinson Street).—I am a maker up and packer by steam power. In average good times there would be about 20 lads under 18 working as hookers or stitchers for me here; the majority of them would be over 12. Most of those whom I have had attend Sunday school, and some a night school. Our regular hours are from 8 a.m. to 7 p.m.; sometimes we may work on till 9 p.m.; and once or twice, perhaps, in the year, a little later. Time was, that the hours of the maker up were very long; that is not so now.

So far as my own house is concerned, we work for regular persons, and are regular ourselves. This, however, cannot always be ensured by all makers up; those who have less plant and fewer hands have either to go into the labour market for an extra supply, or to work the hands they have an extra time whenever a pressure comes. If we have a large order come in unexpectedly, and requiring despatch, we send for jobbing makers up and packers to the clubs; and for hooking lads to their homes, or where we can.

The number of boys under 13 employed in ordinary times by makers up is so small that the effect of any relay system being imposed by law would be to drive them from employment in the trade; for we do not want them, and should get rid of those we had.* But in any case the relays could not work well in our business; it is, speaking generally, much too capricious; the demands for labour too sudden and arbitrary. The maker up depends entirely on others. There comes, for instance, a telegram from London or Liverpool to a merchant here, in the afternoon, to buy goods to be sent by a steamer to sail in two days. The goods must be purchased, finished when necessary, made up, and packed, and all off by the next night. Those that were on the morning relay might not have any work at all; and those in the afternoon would, perhaps, have waited half their time doing nothing, and after all have to leave the work unfinished when another hour would enable them to complete it. The question as regards the limitation of the hours for young persons creates a similar difficulty under the liability to sudden pressing orders. As I said before, I do not suffer much from that; but I cannot say that it is a mere matter of management, and may in all cases be avoided. It is not always the shipper or agent that is in fault; our employer himself is frequently in a cleft stick; there is the demurrage to be looked to; or a ship will often be leaving earlier than was expected.

In times of sudden pressure it is often difficult to get boys to hook, because all the employers will be on the same errand; that is so, at all events, to a very great extent with orders for the Indian or Chinese markets. A telegram comes from India, followed by speedy instructions to all the houses here in that branch of the trade; there is at once a rush to get goods packed and sent off by the earliest steamer, and so long as that lasts boys are in great demand; but there is not such a series of continuous demands from different quarters as to keep them constantly employed at one place or another.

I have often thought over and discussed the question of the education of the young; it is, of course, the parent's duty primarily to provide teaching for his child, but that is not a duty which is likely to be enforced by direct legislation. I have endeavoured to see my way to a compromise or combination of the voluntary and compulsory system by some such means as this. I would have a capitation tax of so much per child levied on the parent proportionate to the rent paid by him; it should be collected by the township in which he resided, and should be appropriated to the schools of all denominations within the limits of the district in amount proportionate to the attendance at the various schools. The parents should be at liberty to select the school, but should not be compelled to send the child. As to the paying a tax of which somebody else reaps the benefit, that in the first place is the payer's fault, for he may send his child; and next it is what is being done in every rate or tax we pay in one sense; but, practically, everyone would reap a benefit from the extension of education that would result; and here, at all events, you may depend upon it that a parent having in any event to pay would be sure to send his child to school, if only to get his money's worth; while the competition to obtain scholars would stimulate the various school managers most beneficially.

Some limit upon the age at which children may be put to work must also be devised; none I should say ought to work at anything before 8 years old, and from that to perhaps 11 they might be half-timers; but there are many lads from 9 to 12 years old, the nature of whose work is such that they might easily attend an evening school after their ordinary day's work; in every department of a warehouse, for instance, there will be some such.

Mr. J. S. Davis (R. and J. Davis, 35, Back George Street).—I manage this business; it consists in making up and packing goods for merchants; that general term includes hooking, which is a preliminary of making up; we also get goods finished for some customers, but do not "finish" ourselves; the makers up are either men or lads, whom we apprentice at 14; we have now only two under 18, the younger of those is about 13; he is a hooker. In busy times we should have a good many more lads; they would be chiefly hookers; they generally keep to us pretty regularly, so long as we have employment for them; but even in such times we rarely work more than 10 hours a day on an average; perhaps two years ago we may have worked more than 12 hours a day 2 or 3 times a week. Our hours are 6 a.m. to 7 p.m. in the summer, and 8 a.m. to 7 p.m. in the winter, leaving at 1½ p.m. on Saturday; many have the hours 8 to 8, but the men prefer the earlier hour to leave off, so as to attend classes and such things; the clubs to which the men belong chiefly regulate that, and though the boys who hook are not members of the hookers club, they are indirectly influenced by it. Our late hours were rather a fancy of my father's partner, who was an unmarried man, with no pursuits to take him away from the business; he had grown old in it, and preferred working late as a good old habit.

Ours is a very varied business; we make up for many different markets, and send to all parts of the world; we are therefore not so liable to suffer, as some makers up may, from the pressure arising from all or the majority of our customers pushing at the last moment to despatch goods by the same steamer. Still we are, of course, entirely dependent on those who employ us, and have our times of pressure, but we do not work as much as 2 or 3 hours overtime 3 days in the week, unless there is a very unusual pressure indeed; and even in that case we should rather have extra hands, "jobbers," from the clubs.* If we had to work the night through, we should work by "pushes," 2 sets of hands, that is, one for day and one for night, but we have worked all night but once in 10 years.

* This opinion has been also expressed to me by Mr. Sam Mendel and several others, both merchants and makers up.—H.W.L.

* See evidence of Mr. Charlton p. 157.

Hookers, &c.
Mr. H. W. Lord.

The carriers' arrangements* have of course greatly contributed to do away with the habit of working overtime; at all events so far as the packers are concerned. I am disposed to think, however, that hookers and makers up might often have to stop late, so as to get goods ready for the packers to finish in time for the noon train next day.

Many would be able to employ younger and smaller hookers than we do, for we have no hoist on these premises, and consequently the boys have to carry the pieces up and down stairs, so that we require them strong. In Glasgow they use girls to hook in "making up" houses, just as they do here at bleach works.

The result of legislative restriction in our business is obvious enough; our capital is employed to farm labour. If the hours are curtailed, there must be either an increase of regular hands, or a more frequent recourse to jobbers.

Wm. Rowland.—(At Messrs. R. & J. Davis).—I am foreman maker up here; 10 hours a day is our average; but not more than 2 years ago we used to work late every night nearly. That was before Mr. Davis was manager here; he may be different, but we haven't had enough work to try him yet. It was unnecessary then, most of our overtime; 4 hours a week was the most it need have been. We depend entirely on the warehouses for which we pack; in those where they do their own packing, or have it done for them on the premises, they can, if they like, be more regular than any of us; for they know what they buy, and what they are going to buy, in most cases at all events, and they can generally judge tolerably well of the orders for any particular steamer which they are likely to have. Indeed they do so in this way, for between the times of sailing, those houses at least that are in one special line, the East Indian for example, send off their lads in droves, and have them back when the usual period for work to be brisk again arrives.

With them and with us too, management is nearly everything. Only a year or two ago I know they were working in some large houses from 8 to 12 at night, and from 8 to 12 in the morning they would be doing nothing; that was nothing more than the neglect of their buyer to do his own work earlier in the day; the foreigners were very bad in that matter, some of them would be at anything but business all the day, come down and give their orders at about 5 p.m., and expect you to be all night working for them.

In warehouses a great deal of overtime has to be made because the managers of the different departments won't work together, but send their orders in late at the same time, and want them all off by that night. That is all want of a good head. In one of the largest warehouses in Manchester, they were working lately all night; that often happened in those days when the carriers would take goods at any hour. The packing, though done on the premises, used then to be farmed out to a man who hired and paid boys to hook, and men to make up these goods for him. The warehouse was shut at 7 p.m., so far as the merchant and his offices were concerned, and he often knew nothing more about it; but this maker up had the keys, and they would go on, the boys often compelled to do a certain amount in a certain time, and kept at it till very late; or driven by the stimulus of an extra penny, where an adult would have an extra 4*d.*, to work fast, as hard as they could indeed; and dreary work it is, and dusty too, when they are hooking grey goods; in some houses, those with a large East Indian or Chinese connexion, they hook grey all the year round; the dust comes from the "Manchester weft," the stiffening, China clay and the like, to give weight. It hangs in the room almost like a fog sometimes.

That pushing the younger ones on by bribing them to do what you may call 20 hours work in 10 hours, makes them suffer much. And when you get to overtime, they become quite thin and knocked up with it; the goods too are injured; for no care is taken, and in their haste they often hook the material instead of the selvage, as they should. I believe that this is the exception here, for now the merchants are beginning to look into it, and they generally stop the practice when they do, for it is against their interest, the late hours and press of work. The middlemen are the chief gainers; the man who had the making up at one warehouse, I have heard, cleared at times 50*l.* a week net profit; I know of 20*l.* a week being so cleared in more than one house. Notwithstanding that it is, as I have said, the exception for a maker up to be allowed to work his hands as late as he chooses in the warehouse of the merchant, for whose making up he contracts, there are such cases yet, or rather would be, if anything were doing; that I know.*

Mr. Barton (14a, Marsden Street, Pall Mall).—We are makers up for shipment, but not for any one line of trade more than another: in busy times we might have as many as 25 lads under 18, but generally our number would be from 12 to 20; we do not take apprentices, as is sometimes done in the making up department, they are too much trouble; so that those lads would be nearly all hookers or stitchers, very few under 13, if any; and they would be cutting tickets or learning merely.

Our hours are from 8 a.m. to 8 p.m.: we pay extra for all work before or after those hours; the hookers get 1½*d.* an hour then; we prefer to have our overtime in the morning when we can, and start on such occasions at 6 a.m.; the greatest number of hours that we should work would be from 6 a.m. to 10 p.m.: that we used to work about 2 years ago, once or perhaps twice a week. That is nothing to what was usual 20 years ago with us. I have stayed myself from 6 a.m. till 11 p.m., every day for years, and often later.† But even so short a time ago as the year before last, I have seen many warehouses all a blaze with light as I was going home at 10 p.m., and have once or twice actually found the carriers asleep on their lorries, completely worn out, as I came in to town at 6 a.m., when they would have been waiting nearly all night for goods at some warehouse.‡ The carriers' arrangement,§ of which you are aware, has now stopped all such work. This has had a wonderfully good effect upon our business: we are driven to work in the morning instead of at night, and the shippers are compelled to give us orders at a reasonably early time in the day. For so long as they knew that the lorries would wait till midnight or all night long for the goods we packed, they would put off their orders to the last: sometimes we are pushed without any need, but of course we cannot know that at the time: I know of one case when a merchant was never easy, for fear of fire, I believe, till the goods were got off, and used always to make his orders most pressing, invariably to be got off the same night, although to the best of my belief, so far as the shipment was concerned, there was plenty of time.

We were busy long enough, after the carriers came to that arrangement, for us to form an opinion as to the extent of inconvenience arising from it to us.‖ It amounts to nothing: we tell our customers we cannot get their order done in the time, and they have to wait or go elsewhere. But generally speaking the only consequence is that, knowing that goods cannot be got off after a certain time in the evening,

* See evidence of Mr. Twitty, p. 152.

* Mr. Goodier expressed a similar opinion to me: but see Mr. Stewart, p. 158.

† Of this I received on all hands very general confirmation.—H.W.L.

‡ Mr. J. Ashworth and several others confirmed this statement from their own experience in similar cases.—H. W. L.

§ See Evidence of Mr. Twitty, p. 152.

‖ See also Mr. Crooke's evidence, p. 155.

they give us their orders earlier. There is much less difficulty than there was about catching a steamer; the sailing of packets is not nearly so much a matter of season as it was formerly. I believe that the things would level themselves, if all were equally restrained; but the warehouses must submit to the same regulations that we do, since they employ lads in greater numbers, and, if any thing, for longer hours at the very same work as we: as it is, the boys would be employed day after day from 6 a.m. to 10 p.m. even now, if times were better; and then would come a slackness, and for several days they would do next to nothing; the effect of legislative regulations would be to some extent to spread their work over a larger time. And probably an extra press or two, and a few more boys would meet any extraordinary requirements in the way of sudden orders.

We sometimes send goods to be finished by a regular finisher before they are made up and packed by us: I do not think it would be possible for us to divide a large order, supposing that they were under the act, and so could not work overtime, and that our finisher could not complete the order without so doing: the finish of one house is perceptibly different from that of another; and it would not do for us to ship, on one order for say 1000 pieces, 500 with one class of finish and 500 with another.

There is by the way this distinction between us and the finishers in the employment of lads, that we have no close hot atmosphere loaded with the steam of drying or stiffening machines in any of our rooms: there is some dust in hooking "greys" of a certain class at times but they might hook them for a month and have none, and if they had, it would do no harm: we however, have not much of the East Indian trade.

There has been a great improvement in the class of hooking boys in late years. My father used to say that a calenderer was the worst school you could put a boy to, and I can recollect the hookers when they were far more ignorant and ill-mannered, and bad too, than they are now; they used to be allowed their drink with the men, and got often quite fuddled with it. I introduced, as soon as I could, the plan of giving them money in place of the beer. Most of them can read: at least those with us. I am inclined to attribute it to increased intelligence in the parents; their homes are better, so they are better too.

I should not altogether like restrictions on their hours; it would often fall hardly on them; we have a lad here whose father is a shoe-maker, but is quite helpless; and that boy is keeping his mother and sister on what he earns here; he is glad enough to be able to work a little overtime and earn some more money for them.

To show you the uncertain nature of our work, I find myself here this morning, Tuesday, with a large order that must go off on Saturday; we must work every day from 6 a.m. to 10 p.m. to do it; and next week, probably, we shall not have a stroke. I have no doubt whatever that if, from any cause, this arrangement among the carriers was to be given up, all our old habits of late hours would revive. I must say, however, that I see no probability of such a thing taking place.

Michael Foggarty (at Mr. Barton's).—Am a hooker; 16 years old. Have been hooking, and that 4 years; used to work twice a week from 6 a.m. to 10 p.m.; I was very tired after that. I think that was the longest time I ever worked here, or anywhere. I know I made 92 hours in the month for extra wage. Before I was 12, I used to work at a curled hair manufactory on Shude Hill. There were 6 or 8 boys there. We used to roll the hair. Our hours there were 6 to 6. My feet don't get sore here; I wear this pad to keep the edge of the stuff from cutting me. All the boys here can read.

Mr. Barton.—The way in which that lad makes up his 92 hours a month extra wage is this. There is so much set for an hour's work, and whatever extra is done in the hour is extra work: that he measures by time. For instance, if he were set 30 pieces and did 40 in the hour, he would be one-third of an hour in advance, and would call that 20 minutes. Then, as he was, he says, in that month working twice a week from 6 a.m. to 10 p.m., or 16 hours a day, he would have about 30 extra hours in the month, out of which, in addition to the ordinary hours of work, he might be getting this extra wage by working in advance. I think, though, that it is probable he has put on 10 hours or so.

Mr. James Ashworth (Brazenose Street).—We had a very extensive outdoor connexion 5 or 6 years ago, and used to make goods up on other person's premises: often having, in times of pressure, to employ jobbers at 6*d.* an hour. Our hours were very bad in old times. When I was a youth, I have never left the place, for 8 or 9 years, till 11 or 12 at night, and often not till 1 or 2 a.m. Even in 1854, and again in 1856, our packers have stayed till 2 and 3 a.m.; the makers up and hookers would not be later than 10 p.m. then; for there would be yarn and such things for packing, that required no making up. There is nothing in the mere making up, as there is in the finish, to prevent the merchant from dividing among several a large order that he could not get done at one place; but the maker up dare not do so. He dare not risk the patterns, &c., being exposed on his sole responsibility in a stranger's room.

Instead of working after 8 p.m., we begin at 6 a.m., 2 hours before our usual time, if any overtime is needed; that is better both for the men and for us. In extreme cases we should employ extra hands; but the shippers give their orders earlier than they used to do; or, at all events, our customers know they must send early for us to do anything, and do so accordingly: but we don't work from 6 a.m. more than 8 or 9 times in 3 months.

Many keep their goods, or delay purchasing, till very late, from mere laziness; it used to be no unfrequent thing for a merchant to keep people making up and packing for him till 11 p.m., because he did not choose to begin his own work till about 5 p.m. But I am convinced that working after 8 p.m. does not answer. If we had been slack for weeks before, I would not do so.

We should have about a dozen lads under 18 in busy times; but no one has any number of hands on now. We are not likely to have any much under 13. When trade is brisk, the boys don't stay with us, but go off for a job in one place or another, in which there may happen to be an especial pressure. They will get 4*d.* an hour at that so long as it lasts, and that is the temptation.

We are protected by the carriers' arrangement from going back to the old late hours; if they were to return to their old habit so should we; but there is no fear of that; the men suffered too much.

Mr. Crooke (Messrs. Crooke, Morris, and Holmes Dale Street).—I have been in the trade since I was 13, and have had considerable experience. We make up and pack for one house exclusively for the India and China markets. We have not one-fourth of our ordinary number of lads here now; all of them would be 14 years of age, at least, except the ticket-writers, I should say. I used to be very much opposed to the Factory Act; but I have seen that, on the whole, it works well, and have changed my opinion about it. A limitation of our hours to 10½ for young persons would do no harm to us, I believe, if all classes of makers up were included. I don't think, however, that we want any Government regulations, for the carriers' arrangements have regulated us. Since they resolved to take no packages after 8 p.m. for Liverpool, and 6 p.m. for any other place, we have often been very busy, and had ample opportunity of testing the effect of that arrangement on us. We have never had to work overtime since; and it all comes to

Hookers, &c.

Mr. H. W. Lord.

this, that our employer gives his orders at 9 or 10 in the morning, instead of 5 or 6 in the evening, and we work all day, instead of, as not unfrequently happened, nearly all night. The inconvenience of fixing on us a system of inspectors and certificates, and the like, is the only thing that I object to in any Act.

Warp sizers and stiffeners.

Mr. J. G. Bardsley, junr.—I am a partner in the firm of John Bardsley and Sons, warp sizers. We have works in Oldham and Rochdale, as well as here, in Manchester, and know, one way or another, the extent and nature of the business of sizing warps throughout Lancashire. Ours is the largest concern of any in the trade, for we have 8 sizing troughs while the rest will have one or two at most; there are 5 or 6 in the Manchester district besides ourselves, and there will not be 30 lads under 18, including van lads, among us all, even in busy times. We should have, I dare say, 15 or 16, but the youngest of those would be van lads ; we promote them, when they are about 16 or 17, to work at the machines ; there they have merely to fasten the ends of the warps together, so as to have a continuous band passing into the size trough. The size consists of fermented flour, and no harm can come of it. You will not find any under 16 employed anywhere in our particular line of business. In the country places warp-sizers will have rather older lads than we have in Manchester, for they pay them a higher wage, and give them the heavier kind of work, loading and unloading, as well as doing what ours do. The van lads merely keep an eye on the goods in the van while it is waiting anywhere, if the man has gone in, and assist him generally.

Our hours are very uncertain, for we depend entirely upon the spinner to supply yarn for us to size, preparatory to weaving. We work both for home and export trade. For the last 4 years we shall not have averaged over 5½ days a week, taking one week with another. We are, however, liable to work, when pressed for time, from 6 a.m. to 9 and 10 p.m. ; but that has not happened so as to make an average of over 7 days of 10½ hours in the week a dozen times in the last 4 years; 15 years ago there was much more overtime with us ; one week our engine stopped only once from Monday morning to Saturday night. The increase of railroads on the continent has made a great difference in that respect. Every autumn we used to work night and day, so as to be beforehand with the frosts on the Neva, for instance, or the large Dutch rivers ; for Russia and Holland take a great deal of sized warps. The uncertainty of our work from day to day still continues, though the liability to excessive hours is lessened ; at 6 o'clock last night, for example, we did not know whether we should have to begin work at 6 or 9 to-day ; so we have no regular hours, but tell our men over-night what time to come next morning.

It would make little difference to us, or to any in in our trade, if we were limited to factory hours for persons under 18, for we should probably get rid of those we had under the age, and it would involve only a few shillings more wages ; still we are very much opposed to any overtime ; the men get tired and careless, and waste much when they have to work too long. But there is little overtime made now. The Saturday half-holiday, which has become almost universal here, the increased facilities for communication by railroads and steamers, and the improved Postal systems, have all contributed to diminish overtime. Some years ago the German merchants, for example, would not get their letters till late on Friday ; we should be working to their orders till 8 p.m. on Saturday, or later; then the warps we had prepared had to be packed and conveyed to the station, and so it used to happen that people, as they went to church, met carriers with their loads in the streets. That is all ended now.

Mr. Parrington.—I am executor of the late Mr. Houghton, and conduct the business of a stiffener on the premises formerly occupied by him in Clowes Street, Salford. There are only 3 or 4 others in Manchester or Salford who stiffen without doing any other part of finishing ; we have none under 15. It is very bad for young growing children to be in the hot rooms where stiffening goes on ; they are sleepy all day with the steam and heat when they have to work so young. We used to have girls, but have none now, and I think none are employed in any ordinary branch of finishing in this district ; they cannot carry the weights boys can, and cannot take a turn at tenting the machine, but are limited to the mere hooking.

Merchants, &c.

Mr. David MacHaffie.—I am junior partner in the firm of John Pender & Co. From my own experience, independently of any general principles of philanthropy or policy, I am opposed to over hours. I have suffered myself physically too much from night work in my younger days not to see the evils, and to wish to avoid them. I am convinced that even commercially speaking it does not pay ; we accordingly pay our hands for over *work* not for over-*time*, for all, that is, that they do beyond a certain quantity in a given time, we pay something above the ordinary rate for piecework. The great thing is to give them enough to do. If they have too little, they will be too long ; the more there is to do, the more there will be done in a given time, whatever it is.

I do not think we require legislation for ourselves, but I am not adverse at all to it, and no doubt in many places there are abuses which should be corrected, and employers who must be restrained : we are prepared to undergo some inconvenience if need be, to keep those within due limits who are not influenced by a sense of the moral obligations existing between employers and employed ; only do not be vexatious ; that is all we are afraid of.

Mr. Peacock will be able to give you the details of the children's employment by us better than I can. He too can speak from his own experience of the evils of long hours. But all that system is passed away. I believe I may say that the views which I have expressed to you upon this subject have the general concurrence of my senior partner Mr. John Pender, who is at present absent from Manchester.

Mr. Peacock.—I am the manager of the warehouse department at Messrs. John Pender & Co.'s, in Mount Street. They do a very large business, perhaps the largest in Manchester, as foreign shipping merchants chiefly, but also in the home trade ; there is much less need for any overtime in the latter than in the former branch of the business, so whatever can be effected by good management towards avoiding or lessening it in the one, can with much greater ease be effected in the other.

It is in my opinion, and I speak from an experience of more than 18 years, solely a question of management. The old fashioned plan was to arrange at mid-day the work that was to be done before the night ; that is still adhered to in many warehouses ; but we have for 15 years arranged all our work for the following day over-night ; Mr. Pender will have it so, and the consequence is that night work and overtime are in a general way never heard of among us ; it is not so merely at this present time when the whole trade is so depressed that we may almost say there is nothing doing, but it has been so all along

since the work has been systematically settled overnight ; and we are always a day ahead.

Our office hours are from 9 a.m. to 6 or 7 p.m., with the interval of an hour for dinner ; sometimes they may stay till 8, never later, except occasionally on Circular night once a month, and that we are going to alter, it can easily be obviated, that is the last remnant of the old bad system. They are however, only the older and better educated lads there ; the "hookers" in the warehouse are an inferior class, and many of them very poorly educated ; that term includes the boys who cut the tickets and who stitch ; they begin many of them at about 10 years old or so with cutting tickets, and, as they grow older, learn to hook. The hooker, when he has hooked the proper length (some 28 to 30 yards, according to the nature of the material and the market for which it is intended) carries each piece of that length from the hooks to the table to be "made up." The frames are always set in rows close to the long "making up" table, so that he has no distance to go.

The length, when folded or made up, is "stitched," or fastened at each end of the fold in the middle. That is done by a boy, and then ticketed, it is then ready to be pressed and put into the bale.

The boys who hook for us are now under our own control and paid by us directly ; this was not always so ; we used to underlet our packing to a man who contracted for it, providing the labour himself, but using our rooms ; we had, however, to get rid of him, and the whole is now taken into our own hands.

A boy will get 2*s.* 6*d.* a week, and for all that he hooks over 30 pieces an hour so much a hundred ; a fast worker may get 10*s.* a week. Hooking greys is very bad, positively injurious in some cases from the excessive dust ; we have to sweep the room 4 or 5 times a day when that is going on : I have come back here from my rounds through them as dusty as a miller ; with some sort of goods, the size in which is of a particular kind, the hooking boys are always running to get a drink of water ; in prints there is no dust.

Of course there will be less and less of overtime in proportion to the extent of the machinery for packing. Packing is now effected in most warehouses by means of hydraulic pressure that may be worked by hand, but is generally by steam ; we have a very large plant with one or two extra hands for occasional extra work. The largest "day," we ever did was with one hour overtime; we packed 1,005 packages in two days. The final process of packing being done by machinery will naturally tend to increase the amount of labour in the preliminary stages where the work is done by hand ; the simple way out of that difficulty is to increase the number of hands until they can produce sufficient supply for the machinery. When we underlet our packing, we used always to insist on extra hands being taken on when there was extra work.

I have no doubt that in a great many warehouses, if trade were to revive at once and become brisk, they would stay much later than 8 p.m. I used, not so many years back, to see lights in the warehouses at midnight.

Much of the overtime is merely the result of a bad habit of idling, and is unnecessary ; many of our boys will get their week's work done by Thursday, and be in effect earning a week and a half wage in a week, and that without overtime.

As to the question of the surgeon's certificate,* the jobbers who are, of course, the most irregularly employed are adults, but if a certificate is good once for all, wherever the person happens to be employed, there would be no difficulty.

John MacCann.—Am 15. Have been hooker at Messrs. Pender's for 4 years ; come at 8 a.m. Have stopped as late as 10 p.m., but not often : generally have left at 8 p.m. I get my hand cut by the edge of the piece in hooking even now, when the piece is stiff. The grey shirting is the worst. Go to Sunday school now ; can read and write.

Mr. Charlton (at Mr. Sam. Mendel's, Portland Street). I am foreman of the warehouse ; have been in Mr. Mendel's house from a boy. Times are much changed from what they were 20 years, or even 10 years ago, as to hours of work. I don't refer to the present as it is, but to the hours observed by us 2 years ago, and which will be kept, however busy we may get again ; and the bulk of the big houses are in that respect like ours. 20 years ago we never got away till between 10 and 12 p.m., now we all leave at 7 p.m.; 8 a.m. to 7 p.m. in winter, and 6 to 6 in summer , those are our hours. One twelvemonth we may not be a dozen nights overtime ; another twelvemonth we might, perhaps, work a little over for a quarter of the year ; but at most for 1 or 2 hours ; very seldom indeed, not 4 times a year, so much as 4 hours over.

We have scarcely any boys here now ; there is nothing for them to do. In moderately busy times our ordinary number would be 50 or 60 boys, and when a pressure comes, we send for extra hands, "jobbers," from the various clubs of adult makers up, hookers, and packers, that exist in thorough organization throughout the town. Those we have to pay beyond the rate of wage for our regular hands ; we should want 20 or 30 more from that source to get such extra work done in reasonable hours, but it answers our purpose to have them, and to avoid late working. It is better for both parties, and, in the long run, cheaper for us.

There are men, some old men, 50 or 60 years old, in the hookers' clubs, who profess to "hook ;" but a boy will hook two pieces to their one, and do it twice as well. As a rule no hookers with us are under 12.

Our stitching is done by the young men ; for the stitcher has to carry a large package of the pieces, when stitched, to the stamper ; boys couldnot do that.

Most of our lads get 7*s.* 6*d.* a week ; there's many a house will have a push of some three months, or so, and then discharge nearly all their boys ; they won't keep them to look at. But besides all that, hookers are generally a loose lot ; they change about a good deal, from one house to another. Ours are picked, and are superior, and remain with us ; many have been 6 and 8 years here.

I am sure that regular hours will become general, in a town like Manchester, at all events ; they are becoming so more and more. What prevents their general adoption is chiefly a mere want of system. I believe it is only in the smaller houses, and in those of the makers up who pack for a number of merchants in the same trade, that very long hours would now be found. As for example, when all or most of those for whom they make up, want to send off consignments by the same ship. In such houses, also, there is often little room and little machinery; no conveniences for packing. In one week they will work for several orders, perhaps the night through, for 2 or 3 nights before a steamer sails, and the next after that, perhaps, not sailing for a fortnight, they will be idle for a whole week. They must keep their hands on, for jobbers are much more expensive ; so, when the work comes in, the ordinary hands have to do it all under pressure ; but even then a great deal might be avoided by a little management and some positive restrictions. The habit was not to begin till nearly time to go home, and where no one interferes to prevent that, it still goes on.

It was never so general a thing with makers up to work overtime, as with the bleachers and dyers ; many of them have their works in villages and country places, where there are no clubs to provide extra hands, but there is always that resource here.

The effect of limiting the hours of labour of young persons up to 18 to the factory time would be very

* See Mr. Howarth's evidence, p. 151.

Hookers, &c.
Mr. H. W. Lord.

slight with us ; it would cause some of the shippers to hold their goods over, and lose a market, perhaps, at first ; in the long run, I believe, it would stir up the smaller shippers and makers up to be more methodical.

All overtime is costly. I count it, one way or another, to be about a time and a half. I do not think that much more overtime is made, when the packing, &c., is underlet. I know I should take good care that my gas was not being wasted, if I were owner of a warehouse in which the making up and packing was done under contract. For the contractor always has the use of the premises, gas, &c., rent-free. It is more likely that the lads have to do too much task work in the regular hours, for that would be to the interest of their hirer at first sight ; still, if the work is too hurried, it is badly done, and will not be passed. Depend upon it, now-a-days all that is the exception.

John Travis (at Mr. Sam. Mendel's). — Am 14 ; came to work here at 8 years old ; used to cut tickets and go errands for the first year, then began to hook; the foreman of this room is my father, I make up his time book for him, generally leave work at about 7 ; sometimes have stopped later, not often.

[I inquired of two other hookers who were working with the last witness, and learned from them that the hours at other large warehouses at which they had worked were about the same as those stated by Mr. Charlton to have been observed at Mr. Mendel's.]

Mr. Stewart.—I am a partner in the house of Messrs. R. Barbour and Brothers, Foreign Shipping Merchants, Manchester. At the present time we have in our employ 71 persons over 18, 29 between 18 and 13, and only 6 under 13, all are males. If we were now full of work, we should have 50 more hands, 20 of whom would probably be under 13, they would all be hookers ; those under 13 are many of them very poor boys who come to earn a little, and to learn to hook. It takes them some time to become expert: when Manchester is flourishing, and there is plenty of work, there is always rather a scarcity of good hookers. Their earnings will average 5*s.* a week. They are all employed directly by us.

I know of no reason why, if we could get boys enough to come, the work of those under 13 should not be done by relays ; there would be no difficulty in the two sets, but the only way to get the boys to come and work for half wages would be to pass a general act applying to all, or at least the most important, trades yet unregulated, in which the majority of children who find any employment at all are engaged ; otherwise they would go, or be sent by their parents, wherever they could earn most, no matter how long the hours, and how little the opportunities for improvement.*

Our great object has ever been to improve the hours of labour : we now work from 8 a.m. to 6 p.m. and should with very few exceptions not exceed 8 a.m. to 8 p.m., however pressing the trade might become. In our old premises we were rather crowded and could not therefore have more than a limited number of hands employed ; here we have plenty of room, and can therefore take on as many hands as we happen to want for any extra work ; even before we came here, if we had to work longer than our regular hours we used to have them come at 6 a.m. instead of staying later at night ; but the fact is that late hours are becoming obsolete, and in all well regulated warehouses extra hands are had for extra work ; in the last year we have had now and then some very pressing business, but we have worked no overtime, for we have room here for extra hands.

I am persuaded that overtime is good for nobody ; the employers certainly lose by it, even with adults ; for besides the extra expense of gas, wages, and other matters, the men are unfit for the next day's work, besides often doing the night's work badly when they get much beyond the ordinary hours.

The actual work of hookers is not laborious : there are 3 hookers to each maker up here, and consequently, as Mr. Connor, the foreman of that room has just said to you, a boy who works at an average rate will get nearly a quarter of an hour's rest in the three-quarters, while the maker up is folding the pieces hooked by the two others.

Our boys are better cared for than many : we always have a kind and intelligent foreman, who will take an interest in them ; and if there is an opening elsewhere in the way of advancement in the warehouse we always endeavour to pick a good boy from among them.

In order to save ourselves the detail, we used at one time to pay our foreman of makers up a contract price per hundred pieces, for which he would provide all the labour, having the use of our premises. But the hours for which those whom he employed were occupied then were always entirely under our control, and I know of no house where that was not so ; in every well-regulated house they would have the arrangement of the hours, whether the work was done under contract for them or not.

When the work is carried on through the night, it is always done by relays ; a fresh set of men coming for the night work ; but the occasion for any such would be very rare.

We have the character of being hard workers, and probably work as long as any in the trade ; and the kind of work we do is as promiscuous, so to speak, as in any house in Manchester ; in fact we ship for all markets.

——— ——— (at Messrs. Barbour and Brother). —Am going 15 ; began here at 9 years old : am hooker now, was stitcher at first, neither is hard work ; stitching is very light, hooking cuts your hands sometimes, not with the hooks but the edges of the stuff, particularly the glazed heavy swissed goods : we often put "tabs" on our hands, between the thumb and finger to prevent being cut, it is there that the cut comes. I used to go to day school, and go now to Sunday school, can read and write and do compound addition : I am not sure that I remember my sums now.

* Mr. Bentley and several others, both finishers and merchants, expressed a similar opinion.—H. W. L.

FUSTIAN CUTTERS.

To Her Majesty's Commissioners.

Gentlemen,

Fustian Cutter

Mr. H. W. Lor

I have the honour to lay before you the evidence which I have collected relating to the employment of children and young persons in the trade of fustian cutting.

Nature and statistics of th trade.

Although the word fustian is properly used to designate one particular fabric, in the term "fustian cutting" it is generally taken to include all other products of the loom, whether of silk or cotton, such as velvets, velveteens, and "cords," the pile of which is raised by cutting the weft threads of the woven cloth.

The number of persons at present engaged in fustian cutting, so far as it can be ascertained in a trade carried on still to a great extent in private dwellings, and at all times liable to sudden changes in the supply of hands, falls little short of 4,000. The readiness with which this trade, once learnt, can be resumed, and the practice, which is very common in some districts, of setting a child to cut fustian until it be old enough to work as full-timer in a factory,* make this occupation a general refuge for the unemployed mill hands, and cause the business to be one more than usually sensitive of the fluctuations in other fields of labour throughout the neighbourhood in which it is practised.

I learned that many cutters, in despair at the low rate to which their wage had fallen since the beginning of this year, had within the last six months left the trade; on the other hand, wherever cotton mills and fustian cutting shops existed side by side, I found that a number of the mill hands, now thrown out of work through the civil war in North America, had turned, or returned, to "cutting."

The habits also of the cutters, "shifting like martens," to adopt the language of one of them,† one week in this shop, and the next in that, and the third, may be, in none, render it difficult to obtain accurate returns even from the larger shops; the numbers in the smaller ones, and in the private dwellings, I have arrived at by visiting in each district those which were said to be average specimens of size and general condition; obtaining from the occupants various rough estimates of the cutting population in the neighbourhood, and adopting the one most consistent with what I had myself observed as to the proportions of sex and age.

The following table represents with, I believe, sufficient accuracy, the results attained by the course to which I have referred: the numbers for Manchester and Salford being derived from a census taken in last December; ‡ those for Lymm were obtained at my request, during my stay there in July, by the witness Gatley; the district being compact and of easy compass, and the number of male cutters rendering it exceptional; the rest are only approximately correct.

Table of Fustian Cutters.

District.	Under 13.		Between 13 and 18.		Over 18.		Total.		Grand Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Manchester and Salford	15	14	36	81	552	619	603	714	1,317
Lymm	57	47	47	61	266	242	370	350	720
Warrington	30	120	35	380	60	225	125	725	850
Royton (including Gravelhole and Pleasant View)	50	100	80	200	95	130	225	430	655
Cadishead, Shaw, and outlying districts	25	50	45	90	75	110	145	250	395
Total	177	331	243	812	1,048	1,326	1,468	2,469	3,937
	508		1,055		2,374		3,937		

The whole trade is supplied with work almost exclusively by the Manchester houses, and is carried on in that town or at places in its neighbourhood within a distance of about 20 miles; Warrington, the furthest, being 21½ miles distant; with the exception of the last-mentioned town, and of Manchester itself, fustian cutting is practised in villages or hamlets, of which Lymm in Cheshire, on the south-west, and Royton, including Gravelhole, between Rochdale and Oldham, on the north-east, are the principal.

In Manchester a great portion of the work is of the heavier class of "cords," and "¾ velveteens," and is performed chiefly by adult labour, and in the dwellings of the operatives; the children who

* See Mr. Meanock's Evidence, p. 173; Sutcliffe, p. 177; Ellidge, *ib.*

† Ainsworth, p. 165.

‡ See Mitchell's Evidence, p. 165.

Fustian Cutters. Mr. H. W. Lord.

are there employed, being generally members of one family, and working under and for their own parents or relatives. From the census, to which I have before referred, it appears that out of 1,317 fustian cutters in Manchester and Salford in December 1861, only 29 were under 13, and 117 between that age and 18.

In other places, and especially in Warrington and the Royton district, the contrary is the case, the number of adults scarcely exceeding, and in Royton itself actually falling short of, the numbers under 13; while those between the ages of 13 and 18 number more than either, and in Royton more than both of the other two classes together.

In every place but Lymm there are more female than male cutters, the proportion even in Manchester being 714 to 603; while in Warrington five-sixths, and in the Royton district two-thirds of all the cutters are female.

The majority of cutters in all places but Manchester work under a master cutter or "undertaker," in shops containing numbers which range from 6 or 8 up to 30 or 40.

In all but the largest concerns cutters of both sexes and of all ages work together indiscriminately.

Mode of work.

Each cutter works at his own frame unassisted by and independently of any other person, except so far as his want of skill or of strength may make it necessary to have help for "beaming up" a fresh length in the frame, or for sharpening and "fettling" the knife used in the work.

The fustian cloth, after it is taken from the loom and before it is sent to the cutter, undergoes a preliminary process called "stiffening;" the object of this is to strengthen the back of the material by means of flour paste, or some such application, so as to afford resistance to the pressure of the cutting knife; this is done rarely, if ever, at the place where the cloth is made, but generally at a separate establishment; the "cutting" also is invariably conducted by persons having no connexion with the manufacturer, and though a cutter will frequently speak of the person who supplies him with his work as the manufacturer, he is in fact the merchant, agent, or warehouseman, who gives the order to the manufacturer in the first instance, receives from him the cloth when woven, parts with it again to be "stiffened" by the "percher and stiffener," and a second time to be cut by the "cutter," receiving it back from him, and sending it to another independent person, the dyer or finisher, for dressing and the subsequent processes which are needed according as the order is for stock, or for immediate sale.

Many attempts have been made, and several patents taken out, to effect the work of the cutter by means of machinery; none have, however, as yet succeeded, nor did I meet with any person connected or conversant with the "cutting" of fustians, who considered the substitution of steam-power for hand labour likely to be so soon brought about, as to form a disturbing element in devising measures to regulate the present state of the trade.

In the production therefore of this article of commerce the cutter stands with machinery before and behind him, the sole but essential hand worker.

The cloth is made in pieces of various lengths; that of cotton velvets and of five-eighth velveteens, which furnish the chief of the work for children and young persons, averages a hundred yards; the breadth of the former is on the average 22 inches, that of the latter 25 inches.

Previously to fixing the piece upon the frame the cutter brushes the cloth over with a lime wash, in order to get rid of the grease in the material, and to make the threads crisp for the knife to cut, as well as to increase the stiffness.

When thoroughly dried the piece is fixed in a frame, of a length averaging 6 ft. 10 in.,* raised about 3 feet from the ground. The frame consists of two rollers, one at each end, to wind up and give off each length as it is cut, connected together by side beams, but having nothing between them upon the upper part of the frame in the nature of a board or table, and thus admitting of the cloth, which is tightened as much as possible, "giving" slightly under the pressure of the knife in cutting.

Physical results.

Each length, when fixed in the frame preparatory to being cut, is carded by a small hand-card, which the cutter uses; this process is the cause of a great quantity of lime-dust and flue in the work shops; and especially where silk is being cut, and several lengths being carded at one time in the same room, the air becomes almost clouded by the dust. When there is any tendency to disease of the lungs, this appears to be injurious, and the prevalence of bronchial complaints among cutters has been attributed, by the medical gentlemen whom I have had the advantage of consulting, to the same cause.

To the evidence of those gentlemen† I must also refer you for very valuable observations upon the deformity of the knee, ancle, shoulder, or spine, as well as upon the generally stunted growth and impeded physical developement of the youthful fustian cutter, produced in their judgment, the former entirely, the latter to a considerable extent, by the long irregular hours during which a child is forced, or suffered, to work at a very early age in the mode which I will now describe.

The "cutter's" knife is a steel rod, like a fencing foil, some 2 feet in length, four-sided towards the handle, but tapering to a "temper" or flat blade of the utmost thinness, extremely sharp and flexible for 4 or 5 inches towards the point; this is laid in a metal sheath or guide about 4 inches long, which projects beyond the point, but allows the edge of the knife to rise, for the length of perhaps $1\frac{1}{2}$ inches, to the height of one-eighth of an inch above its sides.

The cutter stands with the frame upon his right hand in advance of the end of the winding up roller, and beginning at the side furthest from him, inserts the point of the guide under the weft, which covers the first warp line; then, holding in his right hand the handle of the knife, he pushes

* 6 ft. 6 in. to 7 ft. 2 in. See H. Moston, p. 170; T. Shepherd, p. 176. † Dr. Simpson, p. 167, and Mr. Kershaw, p. 175.

it rapidly along the warp to the further roller, severing the weft threads, as they come in contact with the sharp knife edge. Fustian Cut

In this action the body is thrown forward with an inclination to the right, and the left shoulder is brought up and round, the weight being at the same time transferred from the right to the left leg on a sideward stride, and the balance maintained by placing the left hand upon the side beam towards the further roller. Mr. H. W. L

This movement, in the case of a young or undersized child, becomes almost a bound, the body being flung across the frame, the right leg tossed into a position nearly parallel with the side beam, and the left arm discharging, as it were, the duty of a supernumerary leg by checking the forward fall, and recovering the upright position by a push back from the top of the bar, on which the hand comes down.

In many such cases the child has to stand upon a board, raised at the end from which the thrust is made, and sometimes at both ends, by one or two bricks, in order to be high enough for him to reach across and along the frame.

The age at which a child is put to "cutting" varies somewhat with the particular locality, and somewhat with the state of the trade from time to time. At Gravelhole many children begin "cutting" at 9 years of age, and some before that. At Lymm, where from a combination of causes I had an especially ample opportunity for obtaining statistics and testing minutely assertions of doubtful accuracy, I ascertained that out of 202 persons under 18 years of age employed in the month of July last at that trade, 78 had commenced cutting before they were 10 years old; 26 of those had begun before 9, 7 were put to it between the ages of 7 and 8. Very young children employed.

In some of these cases no doubt the work was begun at home, and taken easily at first; but in many more the parents' straitened means or dissolute habits make shop work a necessity, or home work a less preferable alternative. I was informed of one drunken father, who forced his little girl to continue cutting for him, until the spine disease, of the existence of which he had repeated assurances from surgeons and others, absolutely prevented her from standing to her frame.

Such a case is probably an isolated one; but the intemperance and improvidence, which were the sources of it, are vices, among adult fustian cutters at all events, too common and too fatal to admit of any general reliance on home influence and parental solicitude for the protection and instruction of the young, even when the child's earnings do not, as they often do, form a material contribution towards the support of the family.

From my own observations and inquiries in Warrington and Royton I am disposed to think that the children are not there set to cutting at quite so early an age as at Lymm; still in the first mentioned town the greater number are at work by the time they are 10, and many before that; in Royton the average age at beginning will probably be six months under that at Warrington.

It is not, however, the early age at which the children begin to cut, that is so injurious,* but rather the long late hours at such an age in a confined, if not otherwise unhealthy, atmosphere. Fourteen hours a day is in most places the admitted average of the child's work time for the week, broken indeed by meals, but those of uncertain length, and often at uncertain times, depending in many cases upon the amount of resolution which a child, untrained, and with every incentive to idleness in the shape of example about him, can bring to bear upon a task, seldom perhaps excessive in itself, but always wearisome. Long, irregular hours.

Yet the way in which this average is obtained makes the nature of the occupation still more hurtful.

It is a habit, now, as it seems, inveterate among cutters, to make "play days" more or less of the Monday and Tuesday in each week, and to work up the arrears in days of 18 and 20 hours at the week's end; in not a few instances working the whole of the Friday night. The journey hands do this from preference; the master cutters, themselves, in the majority of cases, in no way superior to those whom they employ, except in the possession of a few frames and a grindstone with a shop to place them in, have not the power or the energy to maintain any system of regulations, though one and all declared to me that some restriction upon the hours of work would be the best thing that could befall them: the children, even when apprentices, or otherwise more under the control of their master than journey hands, are often either suffered through the absence of any control, or forced for want of help to sharpen their knives and fix their pieces in their frames, to waste the beginning of the week, and to get two days work into each one at the end.

There are, however, masters, and those for the most part the employers of the largest number of hands, whose arrangements for the children are less objectionable; with such the young ones are set to work in a room apart from the elder ones, under an overlooker, who keeps them up to their work, sharpening and "fettling" their knives, and giving them what other assistance may be needed; this, however, is the case only where the number of juvenile workers is sufficient to make it worth the master's while to assign a room and a man for that object, and even with them 14 hours a day is generally attained and not unfrequently exceeded.

Although in many places the practice of binding by formal indenture of apprenticeship has been to a great extent abandoned, the terms and other conditions of hiring children are practically preserved by an agreement with the parent, in the nature of an apprenticeship, for the child to work for three, four, or five years, at what is called "half earnings;" under which arrangement the master retains one half of the amount, which he receives from the "manufacturer" for the child's work, by way of payment for providing the child with tools, frame, and teaching. After about six months or a year at "cutting" most children of 11 years of age will do as much work in the same time as an adult; but in the case of an adult or other journey hand a proportion varying from 2*d.* to 3*d.* in the Trade easily learned.

* Dr. Simpson's Evidence, p. 168; Mr. Kershaw, p. 176.

stian Cutters.
r. H. W. Lord.

shilling will be deducted, as the master's profit, out of the sum realized by the work done, and for the use of shop, tools, &c.; the value paid for the teaching may, therefore, be considered to be at the least 3*d.* in the shilling upon all the child's labour during the continuance of any work under the agreement.

The parents and children, however, seem generally aware that a child working under such an agreement may be taken away with impunity, and frequently avail themselves of that power to remove a child, as soon as he has learned his work, to a shop where he can earn higher, if not the regular, journey wage; and in several cases of formal indenture I learned that the absence of any covenant by the master to find work or wage to a reasonable amount in any event had been in like manner taken advantage of.*

In Gravelhole and Royton, however, the agreements were seldom for a period of more than 12 months at "half earnings," and some few at 11 years of age were said to be receiving journey wage.

ate of ucation.

The ignorance among cutters of all ages is very great; even among the master cutters for example, more than one half of the returns to the forms which I sent to be filled up, contained several grievous errors in spelling; and in every instance in which the master had not filled them up with his own hand, it was, except in two cases, I believe, because he could not write himself.

From an interesting report drawn up last Christmas for the Operative Fustian Cutters' Committee at Lymm, a copy of which I transmit to you herewith, it appears that out of 111 cutters then under 13, 78 were unable to read; at Warrington it was stated to me that 40 per cent. of those under 13, and 60 per cent. of those between 13 and 18 in that town could not read; and from a number of instances, in which I found, by testing their assertions, that "reading" was limited at best to spelling monosyllables, I am inclined to consider that per-centage to be below the mark. In Royton and Gravelhole, and also in Manchester and Salford, the accounts I received and the observations which I made, convinced me that the cutters, old and young, were not at all better educated there than at Lymm or Warrington.

The fustian cutting child has little opportunity for schooling of any kind; day school is never attainable; even on the Monday and Tuesday, though in effect they "play," as their elders do, but more harmlessly, they have to hang about the shop in an attitude of laborious idleness during most of the daytime; they might, indeed, go to school in the evening of those days, for in most of the districts where they live and work, (their homes and work-places being seldom far apart) night schools of some kind exist; but their parents, even if they cared to send them, which few of them do,† seem to have but little authority with them; (and a child under 13 years of age, in that class of life at least, will scarcely go to school, unless it be sent, at any time;) while on the remaining days of the week they would be incapable of receiving any useful instruction after their day's work, even if that were not, as it frequently is, protracted beyond the hours even of night schools.

In many night schools, moreover, none are admitted under 14 or 13; that is the case at Warrington, in which place, as also at Lymm, the fact of the late working at the week's end is signally illustrated by the experience which has convinced the promoters of the evening classes that no attendance on the last three days of the week can be expected.

ate of places work.

The condition of the places in which the work is carried on, varies considerably; in Manchester, where, as before noticed, the employment of children, otherwise than in private dwellings, is the exception, the shops are very bad; low-roofed garrets in back alleys, unwashed, unswept, offensive to sight and smell: and to many of those in the other districts the same description might apply. There are however to be found in each town or village there two or three large and well-built cutting shops of two and sometimes three stories, owned, as might be expected, by some of the leading members of the trade, which serve at least to show that the objectionable state of the older and smaller shops is owing rather to the habits of the occupier than to the nature of the trade, which requires much light, and is decidedly "clean" work.

The practice, when the space is limited, of hanging up the pieces to dry after they have been lime-washed, in the shop where the work is going on, is very objectionable; the stench arising from some silk velvets so treated in one of the shops I visited was scarcely endurable.

The frames are arranged in parallel lines one after the other up and down the room, so that the light from the windows, which are always in the side walls and of large size, may fall in line with the weft and transversely to the warp thread.

So far as my own observations went, the worst managed and dirtiest shops were those occupied by a class of middle men, who receive from "undertakers," having large connexions with Manchester houses, the overflowings, so to speak, of their shops, and employ the labour not required in, or rejected from, the better regulated places.

Such employment, from its uncertain and precarious nature, tends to foster habits of irregularity. As an instance of this, an extreme one no doubt, Mr. Bancroft, the Relieving Officer of Warrington, mentioned to me a case within his own knowledge, of a man, since dead, who used to employ several under 16 years old; his habit was systematically to drink hard for three weeks out of money advanced upon the tickets, which are given with and represent the pieces sent to be cut; paying his own hands from time to time just enough to keep them ready, but never appearing in his shop the whole time; in the fourth week he would work them on night after night without cessation to finish the month's arrears.

Effects on the peratives.

The combined results of ignorance, irregularity, overwork, and bad example, exaggerated by the dangerous precocity of premature independence, are to be traced in the habits of adults, rather than among the rising generation, in whom that leaven is working. Bold, ignorant girls, slatternly helpless

* See Mr. Wilkinson's Evidence, p. 179.

† See Ellidge, Evid., p. 177, for instance.

women; boys idle and reckless, men improvident and disreputable; that is the substance of the account which even the fustian cutters give of themselves. Fustian Cut

So far as my own opportunities of forming a correct judgment of the habits of cutters, as a class, are concerned, I am inclined to think that the natural tendency to make out a strong case has led some of my informants to dwell too much upon instances, too frequent indeed, but yet hardly general; this is particularly noticeable in the matter of the immorality of the girls. I have not found any satisfactory evidence that they are in that respect below the average of the mill hand or other female operative of the lower classes; while a proof of their anxiety to improve themselves, when they become of an age capable of appreciating the value of education, may be seen in the voluntary attendance at the night schools in Warrington of over 170 "cutting" girls between the ages of 13 and 18, out of a total of male and female cutters between those ages which does not exceed 450 for the whole town. Mr. H. W. L

At the same time the conditions, under which the employment of children and young persons is now carried on, are such as call loudly for some restrictions. A trade, in which most of the workers are females, and most of those females girls between the ages of 13 and 16; which most are set to learn at 10 and many at 9 years old; where 14 hours a day is the average time of children's work, 16 and 18 hours are frequent, and 29 hours at a stretch a possible, because an actual* exception; a trade, moreover, which sets upon those who are devoted to it, under such conditions, when very young or weakly, its mark of a knock-knee or a distorted spine, and at the same time withholds from them the education, which might afford to the mind some means of natural exercise to compensate for the loss of that, from which their physical deformity debars them; when such a trade is being contemplated, the only question seems to be as to the nature and extent of the remedy. Legislation necessary. Provisions the Factory Act applic

Upon the benefit and upon the success, which would attend the limitation of the labour of young persons, engaged in fustian cutting, to the hours of full time sanctioned by the Factory Act, the opinion of employers and employed, and of all other persons interested in the matter, is unanimous; and it is all but universally admitted that the irregularity which prevails is self chosen, and proceeds in no material degree from the requirements of those from whom the work is obtained. In order, however, to satisfy myself that this was so, I put myself into communication with two Manchester houses, that have very large dealings with the fustian cutters, Messrs. H. Samson and Leppoc, and Messrs. N. P. and K. Nathan, and learnt from them that the usual practise is to keep up a large stock of goods of that class, quite irrespective of the orders from time to time received from their customers; such goods after they have passed through the various stages of the manufacture up to that of "dressing," are stored in the warehouse awaiting any orders that arrive, and, as such arrive, are sent to the dyer and finisher for completion.

With regard to the nature of the regulations applicable to children under 13 years of age the difference in opinion is considerable.

In the trade, for very obvious reasons, there is a strong feeling in favour of limiting the age at which a child shall be put to cutting to 11 or 12 years, and allowing it then to work at a full time; this opinion is shared in by many benevolent persons among the clergy and gentry, who are more or less familiar with the circumstances of the case.

To such a course there appeared a twofold objection; one, that a parent would be deprived altogether of any help from his child's earnings in this particular trade, during several years beyond the period, at which the principle of recognizing a parent's right to derive some profit from his child's labour has been allowed by the legislature to operate within due restrictions in other employments.

The second is that there is in such a scheme no means whatever of insuring education. The law which governs the employment of half-timers in mills, the "gem of the Factory Acts," as it was well called by Mr. Kershaw,† makes the education of the child the condition under which the advantage accrues to the parent from his child's labour.

The mental benefit, the fairness, and the generally acknowledged success of this plan, which I need not here dwell upon, led me to make particular inquiries of various medical gentlemen, who were perfectly familar with the nature of the process of fustian cutting and its effect on the children engaged in it.

Their opinions upon this point not only went so far as to sanction the employment of a child in cutting fustian at so early an age as between 8 and 9, provided that the child worked "half-timers'" hours, or 6½ hours with a break for one meal, and during that period was under proper supervision; but they considered such "half-time" work up to 13, even in a physical point of view, preferable to no work up to 11, and full time from that age.‡

Inasmuch as half-timers in mills are worked ordinarily in relays, I have endeavoured to ascertain from various master cutters whether such a system would be applicable to their trade.

Upon this question also some difference exists, but the balance of opinion is in favour of such a system working well. Mr. Meanock, of Gravelhole, who employs by far the greatest number of children in the trade, having 75 under 13, speaks very confidently on this point;§ and as it is to his charge that the great increase of juvenile labour is laid, (the number of children being said to have doubled in the last 20 years)‖ his opinion is less open to the imputation of being prompted by a desire to drive the children out of the trade, and so increase the wages of the adults

The trade is now, and for some months has remained, in a very depressed condition. A piece a week is considered good average work; there are about 45 lengths in a piece, nine lengths is a full day's work, which being done for four days, and the remaining nine lengths divided into five and four Earnings.

* See Evidence of Davies, p. 171.
† Evidence, p. 176.
‡ See Dr. Simpson's Evidence, p. 168.
§ See Evidence, p. 173.
‖ Rowles' Evidence, p. 164; Broadhurst, p. 181.

ıstian Cutters. r. H. W. Lord.

lengths for the slack or "play" days, (a regular distribution, which is spoken of, but seldom practised) gives the 45 lengths at the week's end.

The rate of payment by the "manufacturers," according to Mr. Clayton, of Lymm,* whose evidence on this point coincides with information received by me from various sources, at present is, for—

Velvets	-	-	-	from 6*s.* to 8*s.* the piece.
⅝-Velveteens	-	-	-	„ 8*s.* to 10*s.* „
¾-Velveteens	-	-	-	„ 9*s.* to 10*s.* „

The highest price since 1858 for work of that class, I learn from the same source, to have been paid so lately as Christmas last, when,—

Velvets were	-	-	-	from 11*s.* to 13*s.* per piece.
⅝-Velveteen	-	-	-	„ 10*s.* to 14*s.* „
¾-Velveteens	-	-	-	„ 11*s.* to 15*s.* „

The first two sorts are cut by children, the last sometimes by the older ones, those of 16 and more, but generally by adults, who also have other "heavier class" work such as "cords," for which the pay is somewhat higher: "silks" and "patents" are also adults' work in most places; for them the pay is higher, but the supply is scanty.

Deducting therefrom the master's 3*d.* in the shilling, there is left a little over 7*s.* as adult's average earning per week at the present time, and this is subject to small deductions for holes made in cutting, the cost of candles when needed, and other matters.

lalf-timers ould earn early 3*s.* per eek.

The child at half earnings, getting through its piece a week also, as it generally does, will at the lowest earn nearly 3*s.* and may earn 4*s.* 6*d.* or even 5*s.*

dditional asons why actory Act ould be plied.

A half-timer in a mill will get 2*s.* 6*d.* a week as a rule for "piecing" or "doffing." The extent therefore to which this unregulated employment of children in "cutting" must affect the market for labour, both in that trade and in adjacent mills, is very great; and the general habit, to which I have elsewhere referred, of setting a child to cut till 13, and then sending it as full-timer to a mill, besides putting the mill owner to a disadvantage by compelling him to lose the cheaper labour of the half-timer, and to forego the benefit of having a supply of trained hands growing into full-timers under his control, neutralizes, in that district, the salutary provisions for the education of the younger factory hands, and leaves those of them, who are over 13, as dependent as ever upon night schools, and their own sense of ignorance, for the attainment of the very rudiments of education.

I remain, &c.

1, Tanfield Court, Temple,
September 29, 1862.

HENRY W. LORD,
Assistant Commissioner.

MANCHESTER.

Manchester.

No. 1.

Peter Rowles, fustian cutter.—I am a journey hand, and the writer of those letters to the Secretary of your Commission about the state of children employed in fustian cutting in these parts. Lymm, Warrington, and Royton near Oldham, are the chief places, where juvenile labour is used. There are a good many children also working in outlying districts, such as Gravelhole by Royton, and Cadishead on the south of Chatmoss, and some at Gatley near Cheadle, also at Heywood between Bury and Rochdale.

One of these two men who have come with me to meet you to-night is Thomas Gattley of Lymm, the other is Matthew Mitchell of Manchester, for whom I work. We three represent the journeymen of Manchester and Lymm, and we will refer you to a man at Warrington, who will give you every information about the trade there.

We have been considering the matter ever since last summer, and have got some useful statistics which you shall have.

It is the long irregular hours of work for very young children that makes us want to be regulated by law. The work itself it not bad for the health, except so far as the youth of the children makes them liable to get deformed by the strain, that comes of the way in which they have to do their work, before they are well grown. You must see that to understand it; we cannot explain it properly. Many get humpbacked and knock-kneed in consequence.

The number of children employed in our trade has greatly increased in the last 20 years, more than double certainly.

They are often apprenticed as young as seven and eight years old; but few are bound properly; some for two years, some for four, and some only for one year; and they will be working an average of 12 or 14 hours a day; in some shops perhaps once a-week they will have to work 24 hours at a stretch. That will be towards the end of the week, for the master cutters,—"undertakers" is the trade name for them,—are supplied with all their work from the manufacturers† of the fustian, and have to bring it back all cut to them on the Saturday; that is the usual course. Some I have known begin at 4 a.m. after having had to work from 6 a.m. to 10 p.m. on the day before.

All are paid by the piece, but some children won't get more than 2*s.* or 2*s.* 6*d.* for a long time; but as the work only requires dexterity, and not any strength to speak of, at 13 they will be up to earning adults wages; but they will only get half paid, the master will deduct the other half for himself for the value of teaching, repair of tools, and use of shop and frame.

The children work longer than adults because they are in the power of the employer, and he, when he wants to get an order finished, will make them work on, though the adults wo'nt.

There is no specially busy season with us. The masters may say that they have orders for immediate completion from the manufacturers, and must work overtime to finish them, but that need not be. The manufacturers, many of them, are not at all aware of the way in which their work is done; one that Mitchell was speaking to the other day, didn't even know that children were employed at all.

Many employers are ready to help us and to give all facilities for investigation they can; but a good many are quite the reverse, and will conceal as much as possible;‡ those that have only a few frames will be the worst. That is one of our great difficulties; the trade being so "domesticated" in cottages with three or four children, some of them working under

* Evidence, p. 170.

† The merchants, that is to say.—H. W. L.

‡ I found very little cause for this suspicion.—H. W. L.

Fustian Cutters.
Manchester.
Mr. H. W. Lord.

their parents there; still there are many places where 30 and 40, and in some even 200 frames and more are being worked.

There is one person to each frame, sometimes an adult, and sometimes a child; they all work together in one room, both sexes and all ages, quite as many females as males: where there are a number of children, there will be an overlooker who keeps them up to work with a good rope end.*

There is no such thing as regular hours in the trade, and there 's no education. One don't like to make them go even to Sunday school, after they've been hard at work in the week like that; they are too tired and want rest: as for night school they have no chance of getting there, and if they did they would be too fatigued from over exertion for their minds to take in what they were taught.

In Royton and places where there are factories near, the children often are put to fustian cutting till they are 13, and then go off to work as full timers in a mill; so that then there will be a continual supply of fresh children coming in young without having ever been to school, and so never taught anything.

o. 2. *Mathew Mitchell*, master cutter.—I have 8 frames, but no one under 18 works at them; my shop is at 14 Southern Street, Liverpool Road, Manchester. What Rowles has just told you is quite correct. There are very few children employed in Salford or Manchester at cutting; none I should say, but those who happen to be working with their parents.

The irregularity of journey work in these places proceeds from a cause that does not affect the country cutters so generally. All the cutting is for the Manchester houses; and they send out their regular work, which can be done at any time, into the country, but when any order is wanted quickly, they come to us who are close at hand.

Children do not cut here because there are many other things they can do; in Lymm and such places it's that or nothing very often,

Last Christmas we took a census of the cutters in Manchester and Salford, it is in these 4 books; you can take them if you like; all their names, ages, and abodes are there.†

No. 3. *William Ainsworth*, 21, Clowes Street, Salford, fustian cutter.—I have 20 persons at work for me at cutting; only 2 under 13, one boy and one girl; and 3 girls between 13 and 18. We employ far more women than men; I have only two male adults, but 13 females; their labour is cheaper, and they can do the work as well. They stand at one end of this frame, on which the cloth to be cut is stretched, put the guide in underneath the weft threads, and push the knife lightly along the way of the warp, resting the handle on the cloth, and throwing the body forwards with a spring from the right leg on to the left, at full stride, putting at the same time the left hand on the side of the frame so that they may lean over to reach the full length, and recover themselves. That's it, sir.

Many that are put to it young, get their knees turned in and their shoulders out—the left side up, that is; there are none in my place now so deformed, but I have had some, and seen many.

There is a deal of ignorance among us. I myself was bound for 7 years and had no time for school, and now I could not put three letters together, no, not if hanging depended on it. Of the 20 I have here, only 5 can read, and that came to them by a sort of accident, one was in a factory as half timer, one did'nt begin working till he was 9, and had a brother who taught him; that girl was at school when very young, and then kept her father's house after her mother died, and went to Sunday school; another was taught by her parents, who were respectable people.

The irregularity of the hours is as bad as anything, and it is not necessary, it is merely a bad habit: the manufacturers don't care, so long as they have their pieces brought back at the proper time; the undertakers don't care, so long as they can take it back, and get paid, and deduct their profit; and the cutters like to idle away the first two days of the week, and work as long as they can to finish at the end. With many of them Thursday is the first full work day in the week; only a few days since one said to me he shouldn't think it was Friday, if he didn't work all night.

He of course was working for a house that had their work brought in of a Saturday; some houses have no fixed day for bringing in, but the pieces are brought in as they are ordered, when they are wanted on a Monday, I have known the work go on all Sunday.

I wouldn't stand it; for I found one set coming in some hours after another, and one lot wanting to work half the night, and another to begin before the morning; and I had to be about and look after them all; so that made my day a big one, and now I let none stay after 8 p.m. or come before 6 a.m. 6 a.m. to 8 p.m. are my hours, and they have two hours for meals if they choose. I don't think there is a better regulated place than mine in the trade, though many are bigger; and I get my work done just as well as before; yet even as it is, you come here on a Monday, and you won't find 6 of them here.

They never stick to one place; the generality of them go shifting about like martens, now for this master and now for that; those that are now grown, are unsteady and ignorant because they have never been trained at all, and those that are young still, will grow up unsteady and ignorant too, if they are left to themselves.

I employ more than most in Salford; I should say there are about 250 frames there, and few have more than 7 or 8, and seldom more than a child or two. The children you'll find at Royton and such places; there men, who have never been in the trade themselves, get a room and frames, and put children to them under an overlooker, and get all they can out of them.

Richard Pover, fustian cutter.—I have been a cutter for 41 years, so I think I should know something about it. I have 4 frames at home, one worked by myself, one by my wife, and two by each of her children by a former husband. It's generally in the family like that, here in Salford and Manchester; there are seldom more than 7 or 8 frames together here in one place; it's in the country places where you have from 50 to 200 frames all under one "undertaker," and it's there too that there are the most children. Mr. Ainsworth's, where you have just been, is about the biggest place in the town; there will be about 20 frames there; then there is George Mitcham's, that you have come from now, his is next biggest, and those two are a fair specimen of all the Salford ones, at least they are the best of them, the most regular and respectable. There is one man in Garden Street, who perhaps has more frames than Mitcham, but all but two or three there are adults; that is a very irregular place. I have known of the children being there till 11 at night; now to-day is Friday, they will be working on there from 6 this morning till to-morrow morning right off.

No. 4.

When I began it was a very good trade, but the prices have been dropping ever since; still I managed to put by some money at one time and started a little beer shop down here, so I soon lost it all and came back to cutting; there's no putting by money in it now. We used to get 4*d.* a yard at cutting velvets, and now we get under a penny, and for the three-quarter eight-shaft cord it used to be 2*d.* a yard, now we cut 66 yards for 3*s.* That has come chiefly from their employing so many more children at a low wage. While they are learners they get paid by the week, 1*s.* and 1*s.* 6*d.*, and they keep them down to that as long as they can, but it doesn't take long, only a few months, for a child to be equal to an adult for our work, unless they are very young and small. 2*s.* 6*d.* a week is a deal for a child to earn at cutting; they often have to be put on a stand or have a board raised with a brick or two at one end so as to lift them up, that they may reach to the further side of

* This statement is not supported by any evidence of ill treatment as a practice; it may be *literally* correct in particular cases, but such are exceptional.—H. W. L.

† From these I have compiled the tables at p. 159.—H. W. L.

Fustian Cutters.

Manchester.

Mr. H. W. Lord.

the frame. We always begin to cut the weft threads at the side furthest from us; the width of the pieces upon the frame will vary; the average of velvet is about 22 inches, and that of $\frac{5}{8}$ velveteens about 25 inches; the whole piece of either sort will run about 100 yards long, and the length of each portion at one time on the frame is a little over 2 yards, about 6 feet 8 inches; they are longer in the country: the child will have to make about 35,000 cuts for each piece of either sort, for, though the width is more, the velveteen is coarser.

They won't do much over a piece a week; one velvet piece of 95 yards length will take 54 hours; the pay for that now is 8*s.*, that is what the manufacturer pays the undertaker; then the undertaker has to deduct 1*s.* 4*d.* from that for his profit, the use of shop and tools, and such things, that is not much to earn in the week; and only two houses in Manchester are paying as much as 8*s.* now. It has got worse than ever since last Christmas; they pay more for cords. The pieces run a few yards longer than they are marked, and stretch in "beaming up" or fixing on the frame.

The men in the country places come in and underbid the town workers, they will take it for any price, and get it out of the children. When the children were bound for a term, the master used to take half their earnings; that is not so now.* Some pay the children so much a week; that they have to pay, whether there is work to be done or not, so when they have got to pay them, they will rather overwork them, than put other hands on to help.† What the undertaker deducts is generally in towns 2*d.* in the shilling from males, and 2½*d.* from females; in the country it is 3*d.* from each.

The cutters are all very ignorant, generally speaking, particularly the younger ones, for they have been trained to it so young, that they have never been able to go to school. As for immorality, there is more of it with us than in any trade I know of.

LYMM.

Lymm.

No. 4 *bis.*

Thomas Gattley, fustian cutter.—I work for Mrs. Holt of Lymm; have been 19 years in the trade; the journeymen there have deputed me to wait on you with Rowles and represent them. I agree with all he has told you about the employment of children in our trade. There is a very great degree of ignorance among them; at Lymm 111 last December were employed under 13 years of age; of them 78 were unable to read; this we ascertained by inquiring personally. And yet many of the parents of those children are earning their 24*s.* a week regularly in other trades, but won't care for giving them a proper education and preserving their health and their morals.

As to that last they are very demoralized, not only from want of being taught, but from the mixing of the sexes at all ages. I speak from my own experience, I am sure it is very bad. Many of the girls are mothers before they are wives; many are not married at all, though they have children, and those that do marry, don't know how to keep house at all, or bring up a family.

I am afraid that, even if we got brought under the Factory Acts, there would be plenty of ways to evade them. Those who now employ large numbers of children in one building, would send the work out to be done in the houses of the workmen, where, perhaps, only one or two besides the family would be employed, and no system of inspection could reach them. Or take the case, which is not unusual, for the employer to be the owner of a whole row of cottages tenanted by his journeymen, instead of 50 frames in one shed he has four in each of a dozen cottages, how could he be reached?

I will give you some illustrations of the ignorance we are in; why, there's myself, I can read indeed, but I can only write my name, and nothing else: I have picked up a few instances since I spoke first to you; there's one boy at Cheetham's, 11 years old, he began at 8 years and 9 months, and can't read or write; there is another the same age at Holt's, who began at 9 years and 2 months, he can't read or write; so a boy aged 14 at one of the Mostons. I found several who had been put to cutting at between 7 and 8; it isn't to be wondered at that they could not read. If you ask as you go about, you will find it so everywhere, but some have been "put up" to answer you.

I think cutting by hand will have to go on some time yet; machines have been tried, but none have succeeded. We do our work by the feel; some sorts of work are too much for the young ones, cords and that sort, they do velvets and narrow velveteens.

The younger children are chiefly employed in cutting velvets, which are narrow, running from 18 to 20 inches; they are about 20 inches, but shrink in stiffening; or $\frac{5}{8}$ velveteen, which are about 26 inches wide; the bigger ones will cut $\frac{3}{4}$ velveteen, that is 30 inches wide. The men cut "cords" and the wider or $\frac{3}{4}$ velveteens, "doubles," and "patents," which the young ones can't possibly reach over. The strain in reaching is what injures them when they are so young; that and knocking the side of their knees against the end of the roller; their knee just reaches up to that when they are raised upon the board they have to stand on.

A piece of $\frac{5}{8}$ velveteen will be from 96 to 109 yards long, and a piece a week will be a good week's work at 12 hours a day; the pay for that now to us would be 6*s.* 8*d.*; before last February we were getting 10*s.* 10*d.* for the same amount; our wage had fallen as low as it is now in '58, then we journeymen combined to raise it, but that has fallen away now. There is not more work in the broader pieces, that is, not more races to cut, for the material is coarser, so the races are further apart; it is rather heavier work, perhaps, but a piece of one will take much about the same time as a piece of the other; the narrow velvets, which are finer, will have, perhaps, 900 races in a width, the wider and coarser ones not over 750.

Just this week many of the hands will be away haymaking; that will only be the grown ones; they can get 2*s.* a day in the neighbourhood at that, which is better pay than any we can earn at cutting.

The children who "cut" in Lymm are generally hired under an agreement to work for 4 years at half earnings; very few are regularly bound, since the magistrates have held the masters bound to supply work.

It is a common habit here for the master to set the children so many lengths to do, four perhaps, before dinner, and keep them till they have done it; they get some time for the meal, but it is often not half an hour. I don't know that what they do set is too much for them to do in the time, if they chose. They are not ill-treated generally speaking; many are more or less inkneed from being put young to cutting, and working long hours without being properly looked after, but allowed to stand carelessly.

Most cutters "play" on the Monday; still our supply of work comes in very irregularly; that is not always the fault of those that send us the pieces to cut; often they can't get them from the maker, and having to complete an order by a certain day they have to push us to make up for that previous delay, though we may have had nothing to do for a day or two before.

No. *The Rev. William MacIver.*—I am the rector of Lymm, have been here 17 years. I am greatly interested in the condition of the children employed in cutting fustian; there are more of my parishioners employed in that than in any other trade. The population is chiefly agricultural, it numbers 3,800, and more

* This is an error, the practice is still general.—H. W. L.

† The witness does not mean a hiring at a weekly wage, but an arrangement of the kind mentioned by Mr. Wilkinson of Warrington, p. 179, for the master to pay a sum in any event, work or no work, so that the contract may not be void for want of mutuality.—H. W. L.

than 500* out of those are fustian cutters, so that it may be considered the special trade of the place.

It is a bad trade in many ways, as now conducted, but chiefly in the ill effects resulting to the children from the early age at which they commence, the long hours of their work, the irregularity of employment, and the indiscriminate mixture of ages and sexes. The consequences are lamentable ignorance and immorality, frequently stunted and deformed figures, and a generally inferior physical condition.

No fustian cutter's boy ever stops in my weekly schools after 11 years of age, and out of 130 infants and girls who attend them not half-a-dozen are over 12; a good proportion go to Sunday school, and more I believe to the Dissenting Sunday school.†

As soon a girl is beginning to learn anything at our school, she is taken off to cut and scarcely ever returns, or if she does, she has generally lost all the modest maidenly ways she had, and should have. The girls will not unfrequently, when they are pressed either through lowness of wage or abundance of work, be working on till one o'clock on Saturday morning, and then have to go home alone. It is not like a factory, where they all leave together, and are a mutual protection from temptation; but in this trade they keep dropping out of the shops at irregular times in the evening, careless and fatigued with long toil in a confined atmosphere; their minds are speedily corrupted by the language they hear about them when the master is away, even if he does not allow it in his presence; and it has too often happened, when the master is intemperate, that he has not been into his shop for a week together. The masters have tried to enforce fixed hours, but the workers have been too strong for them; they will be irregular, and take their Monday and their Tuesday too for play days whenever the pay is good enough. Times are very bad with them now, an adult cutter is not earning more than 6*s.* a week, and has not been since May, when the wages were as high as 10*s.* for the same amount of work, but there was less work; not that work is slack now, for the manufacturers seem as yet to be taking advantage of the depressed state of wages to get a stock of fustians cut. Many of the discharged factory hands in other places turn to cutting, and that has lowered the prices.

A large number of children still are bound apprentices, usually for five years; the earnings of the apprentice are generally divided between the parent and the master, the former supplying food and clothing, and the master deducting half for the use of shop and tools, and for the teaching.

The magistrates have generally held here when an apprentice has been brought up for seeking other employment, that the master is bound to find work, and if he do not, the apprentice may take other temporary employment, if he can find it.

During the first 3 years for which I held this incumbency, 1846–7–8, the bastard children numbered 10 per cent. of the births, but of late it has very much decreased; for I have made it my business to check it in every possible way. In the last 3 years, 1859–60–61, out of 273 baptisms but 7 have been of illegitimate children; 5, however, of those have been cases in which the mothers, and it is believed the fathers too, have been fustian cutters, so that they, being in numbers not ⅛th of our population, are as a class in that respect far behind the rest of my parishioners.

The premature independence, which the children contract from beginning early to work by the piece, in a trade where all work is irregular, is productive of great harm. A child will be apprenticed by 11 years of age, or more frequently 10, for 5 years or less; before 16 the term will be out, and the child earning journey-wages. The parents say they cannot manage them, they lay down the knife when they please, and for as long as they please. I have known young girls leave home and go into lodgings in defiance of their parents, if any attempt is made to control them; one girl of 18, about 4 years ago, I asked, if she would like to go into service, "Na,' I should na' like a mistress over me," she answered. I do not recollect what she was earning at cutting. Indeed, they are quite unfit for domestic servants or for any domestic duties; the houses of the fustian cutters are very visibly inferior to those of the agricultural labourer in the same parish, and that is so not only when trade is depressed but at a time when perhaps the father and mother and two or three children are all earning a fair wage at cutting, making 30*s.* a week and more, while the labourer gets his 13*s.* for his own work, and nothing from his wife or children.

Fustian Cutters.

Lymm.

Mr. H. W. Lord.

We have a Penny Savings' Bank, but it is seldom that a cutter puts money in it; we have an Institute and Reading Room, the weekly subscription to which is a penny, but no cutters' pence ever come there as a rule; now, it is true, they have none to spare, but in prosperous times the alehouse has them all.

It will be difficult, I suppose, for any legislation to reach the cottage, but some restriction on the age, at which they may be bound apprentice, is positively necessary, and with a penalty for any violation. Most parents, unless they are very bad indeed, will not themselves drive their children, who are too young, for very long hours at excessive work in their own dwellings, though they do not seem to care what is the necessary consequence of working in the shop of another. This advantage, at all events, there is in cottage work, that there is not that contamination of indecent language and coarse behaviour.

The cottage work, on the other hand, may be more unhealthy and prejudicial, as there is no change of air and scene in that case, as in going from home to shop and back. I am not prepared to say that this is so, but even if it be, I think it is the less evil of the two.

No. 6.

Henry Simpson, Esq., M.D. Lond.—I am a general practitioner of medicine and reside at Lymm; the working population there consists of but two classes, the agricultural labourer, and the fustian cutter: the latter class is decidedly inferior physically speaking to the former; the badness of the food and wretchedness of the general condition of the cutters, owing in the majority of cases to their own ignorance and improvidence both in dress and dwellings, are probably the cause of that very marked difference that exists at the present time; and the depressed state of their trade is of course the origin of that condition: this would already be, probably, affecting the growth and development of the children; but, independently of any temporary cause, the combination of long working hours at an early age, a close atmosphere in the shops, and a so to speak one sided occupation, has a bad effect in several ways; many are pale looking and diminutive. I have not noticed that delay of functional development at puberty, which you informed me has been observed at Royton: if however more than two-thirds of the cutters there are females, it may be that the mixing of the sexes here at such an age, the insufficient supervision over their conduct, and the low obscene conversation which is I am told carried on frequently without restraint in the presence of the young people of both sexes, have the effect of counteracting such a tendency by stimulating the sexual propensities; at all events the proportion which the number of illegitimate births among the cutters bears to the total in the parish, as the registrar of births states, points to the natural consequence of such a mixture under the conditions of irregular hours and absence of supervision, being 9 out of 12 last year in 129 births, which characterize many of the cutting shops in Lymm.

The defect of figure is very conspicuous and prevalent; the distortion inwards of the right knee is most so; that would arise from the careless way a child, unchecked, would have of standing at its work at an age, when a child's bones will take almost any shape that they are bent to for a considerable time continuously;

* The exact number is 720.—H. W. L.

† The Inspector of Schools notices in his last report of Lymm National School for girls, that not more than 10 or 12 of the scholars are over 10 years of age and that they are generally backward.

Fustian Cutters.

Lymm.

Mr. H. W. Lord.

the internal lateral ligaments of the joint also are constantly on the stretch, and yield considerably. Both causes combine to produce the deformity.

The high shoulder, which is another common deformity among cutters, if it were of an aggravated form, would be accompanied by distortion of the spine; it is produced not by excessive muscular exertion, but by the yielding of the figure to the weight of the body resting too heavily on one arm, so that the blacksmith's arm is not a parallel case: I have not had any such cases specially brought under my professional observation; some years ago I had a case of diseased hip joint. It would not perhaps be fair to attribute such cases entirely to the occupation, but where any tendency to such disease existed, it would be eminently calculated to develope it.

I have frequently to treat fustian cutters for bronchial affections; the lime dust and flue amidst which they work, and in many cases the very damp state of the workshops, are certainly the sources to which the prevalence of such disorders among them is referable. Bronchitis does I think prevail more among cutters than among the labouring class here. I am not speaking from any statistics, but merely giving you the effect of my impression at the moment; at the same time I cannot point to any particular disease beyond the in-growing of the right knee, and the high shoulder with some spinal curvature, and say "this is an especial result of cutting fustian;" and I see no reason why a child of even 8 years of age should not work at fustian cutting for 6 hours a day, a reasonable time, that is, with a break for breakfast or tea, as the case may be, having 3 hours for school, and some time for recreation besides; that would be much better than the present state of things, and I think even in a physical point of view more beneficial for the child, than not beginning to cut until 11, and then working the full time; but when the additional advantage of compulsory schooling is considered, it becomes much more preferable.

So many causes are at work in producing the present condition of the trade, that it is difficult to give to each its proper value; much of their frequent distress is due to the too generally prevalent habits of intemperance among them. This of course has various causes; their employment is monotonous, and they crave for the excitement of drinking; most of their houses are dirty and uncomfortable, their children dirty and ill brought up, and their food badly cooked and served up in a slovenly and dirty manner.

All this is in a great measure due to the almost total ignorance of household management in which the women are reared; at 8 or 9 years of age they are put to cutting for the whole of the day, and grow up without any proper knowledge of the simplest cooking or the plainest sewing; for instance, a lady lately gave half a pound of arrowroot to a woman who was quite as well brought up as the average; when, instead of using it in the ordinary way, she made the whole of it into something she called a pudding.

The children are in most cases put out to nurse in order that the mother may go on with her work.

Dirt, discomfort, and consequent ill-temper combine to drive the husband to the beerhouse, where many spend a large portion of their earnings; a drunken husband is often the cause of drinking in the wife, then of course all sorts of evil follow; the children are badly clothed and badly fed; pale dirty little wretches with the painful look of premature old age.

It often happens that wretched living accompanies great extravagance, and that they are badly fed on what would provide good and sufficient food for a large family, if properly expended. I have been told that it is a common custom for them to have feasts on a Saturday night, when they have hot meat suppers with beer, &c., and eat like gluttons, even if they have to pinch for it afterwards.

To this state of things there are no doubt exceptions, and I have known families decently and respectably brought up as cutters entirely. My experience is however of course limited to the neighbourhood in which I reside; of the habits of the cutters and of the condition of the children in the trade without that district I cannot speak, within it the state of the young is so especially connected with the mode of life of those, who are at once their parents and their fellow workpeople, that any inquiry into the one involves at least some consideration of the other.

[Dr. Bennett of Lymm, with whom I had several interviews on this subject, gave me very similar information, and generally coincided with the opinions expressed to me by Dr. Simpson.]

Mrs. Ardem.—I am mistress of the night school for girls at Lymm (there is none for the boys in the summer months); they are almost all of them cutters; we admit none but those who are so employed in the day as to be unable to go to the other schools. It has been going on for about three years. We have 94 names on the books, but 60 is the highest attendance we have ever had; that was in winter; it has been as low as 7; the average in summer is about 18, and 30 for the whole year. No charge is made at present, but we are going to make some small charge, they will like that better, if they can afford it at all.

The elder girls do not come in the summer generally; they are afraid of being seen, they get laughed at in the shops for going, so they tell me. The age varies from 9 to 20, a very few are above 20. We do not admit any who have had bastard children.

We have the school two nights a week, Monday and Wednesday, from seven to nine. We can't get them to attend later than Wednesday; they are always working longer at the end of the week, finishing the week's work, for most of the cutters will make a play-day of Monday and of Tuesday too, often.

They sew and cut out one week and do reading, writing, and arithmetic the others; they like writing the best. Their work is mostly sold to themselves at cost price.

I was mistress of the National School here for 8½ years, and was in the village as a girl, so I know a good deal about cutters. The girls are generally very bold and very ignorant. It is a bad thing their being in the shops with the men and boys; at all events where there is not a good master or foreman; they hear very bad language there, and learn very improper things.

Besides they are very early out of their indentures, and get independent of every body; the mothers are not masters of their children, and let them do as they like so long as they bring money home. They don't look like children, they are often deformed in the shoulders and in the legs and chest as well, and generally stunted; it is unhealthy work.

The young ones work a very long time in the day at it very often. I have heard them at one shop near here as early as half-past four in the morning lately. I am sure they were children, for they have no grown ones there. They are always "agate" there till daylight ends at this time of the year, and often till 10 p.m. in winter. I can't say for certain that they are apprentices who stay so late. I am not generally about so late myself as to see them.

Miss Charnley.—I have been mistress of the National School for girls at Lymm for 2½ years. This is the only day school for girls in the place. There are 70 girls in the room now, four only are over 12 years of age; some of them are cutters' children, the eldest cutter's child here is between 9 and 10, and she is the only one so old; there are 15 others, they are between six and nine. Most are taken away and set to cutting before they are nine years old, and they never return,—never in prosperous times at least; just lately one or two have come back, but I never knew it happen before. I can always tell a cutting girl, their manners are so much worse, coarser and bolder, and they are less manageable.

They often are deformed through being put so young to cutting. We had one girl here 12 years old whose ancle was turned in from the way of standing at cutting for a long time when she was very young.

No. 9. *S. Carter.*—I am the relieving officer here at Lymm. The cutters are a bad lot, careless, intemperate, and improvident; the girls are ruined by it, they are made as hard as flints by the liberty they have. I have seen the boys and girls pulling one another about, when they used the same privy, in a shameful way.

No. 10. *Drinkwater.*—My children cut over the way there. The eldest girl is 17; she is out of her time; she is working hard now doing a piece and a half a week, and has to work 80 hours to do it. Last week she was agate for four days from 5 a.m. to 8 p.m. That boy is an apprentice at the same shop, he generally gets there at 6 a.m. and comes back at 8 p.m.; he begins earlier at times, not often; when he does it is to finish the week's work; the day's work set him is not too much for him to do in the time, but if he gets behindhand at the beginning of the week he must fetch it up at the end.

No. 11. *Mrs. Holt.*—There are 52 persons in my cutting shops at Lymm, 7 boys and 4 girls under 13; the two youngest are 8 years and 10 months; one boy and 6 girls between that and 18; 20 males and 14 females over 18.

All the work is by the piece, so that everything both as to hours and meals is optional; the children generally work under their parents in my shops, but it is so nowhere else in Lymm; none have been apprenticed to me since the death of my husband. We consider the hours to be from 7 a.m. to 7 p.m. with half an hour for breakfast, the same for tea, and an hour for dinner. I do not, however, exercise any direct supervision or control myself, and they may come earlier and stay later if they please; in winter we generally close at 8 p.m., and they can begin at 6 a.m.; some do. The young ones get journey wage from me for their work, 9*d.* in the 1*s.* on what the manufacturer pays me; in fact it is just as if they were not in a shop at all, for their father or mother or an elder brother or sister teach them the trade and look after them, getting their tools and frames ready, and I provide the frames and tools and the pieces to cut; so there is no system of half earnings up to a certain age or time, and no need of any overlooker.

The women do very little of their washing and sewing themselves; but if they have to cut, they haven't much time for other things, whether they can do them or not. I don't think limiting the hours of labour would be of any good; stopping young children being put to cutting would; for as they can do the work of journey hands, and their labour is cheaper, those who chiefly employ them, can underbid the employers of grown hands in taking work from the manufacturer; and unless something were done to prevent people working in their own houses, factory regulations would only drive them from the regular shops to do as they liked at home.

No. 12. *Mrs. Harrison,* fustian cutter.—I cut for Mrs. Holt; we are better off under her than at most places, for as she has capital she has no need to draw her money at the end of each week from the manufacturers to pay herself and us, and therefore is not forced to press us to finish so much in each week that she may take it in and get paid for it, as they have to do in the small shops. Many undertakers say "there's so much "to get done in the week; you must do it or you "won't get paid;" and then if you get behindhand, you're obliged to work late and early to get it up; that's the same with young and old.

It is the breadth of the piece that gives the round shoulder; the right shoulder is the one—that of the hand that holds the knife; it soon grows out if they are put young to it. The rollers used to be lower, and knock the side of the knee; so they do still if the child is so small that he has to be raised to work. My daughter Jane there is 12, she began to cut at 9½ years old, but she had 2 years school before; she can read;* she doesn't often do over 12 hours a day.

* Tolerably well.—H. W. L.

Noah Proffit, cutter.—Am 19; was 10 when I began; my brother Jim is 11; he has been a year at cutting; he comes at 7 a.m. and goes at 8 p.m., generally; we have from 12 to 1 for dinner, and half an hour at four for tea. At Mrs. Holt's, where we are allowed to work in families, the father or mother bring their children, and they all work at frames in the same room near one another; in other places the young ones will be all apprenticed and put in a room together with an overlooker, and, may be, other grown journeymen and women.

Fustian Cutters — Lymm. — Mr. H. W. Lord — No. 13.

I think the mixing of the girls and boys is bad; here they all use the same privy; but it's much better where the families keep together, both for the work and for the morals.

Elizabeth Skellon, cutter.—I began cutting at 12; that was 20 years ago. I don't get to work early; a mother with a family can't; but the husband generally comes at 6 in the morning and works till 9 at night, and 19 children out of 20 come to work with their fathers. In the small shops they have the long Thursday and Friday; we don't here. The taking Monday and Tuesday for play is not general, but many are ready enough to give cutters a bad name; they don't have to work late towards the end of the week because they are idle in the beginning; they have to work late and long to earn anything, and it's little enough they do earn after all. No. 14.

My girl goes to Sunday school; she began to cut at 8½ years old; after working all day they're not fit for school. It's a sin, that a man can't get a fair day's wage for a fair day's work; if a man could earn what he ought to earn, the children needn't come to cut.

Mary Walker, cutter.—Am 21: began at 10; often have to work from 6 a.m. to 9 p.m.; the little ones have too; they come so young that they are too weak to stand long, and get out of shape. They get very tired. No. 15.

There's not much dust made at cutting, but before we cut, we card each length, and that makes a dust, partly the stuff that comes off and partly the lime; I don't suppose that's very good for us, but I don't know that we are liable to any particular disorder of chest or lungs. We often have colds, but that comes of the drafts where they will have the windows open.

[I have retained this piece of evidence to illustrate the almost invincible objection to fresh air which I found among the work-people, and in Lymm, a country place, especially; in small rooms, during warm weather, with enough of dust arising from the work to be unpleasant, though probably not seriously prejudicial to their general health; with windows on both sides of the workshops capable of being opened, and with a number of frames that scarcely left room to pass between them, not one shop in six had a window open, and generally the trap-door, the ordinary means of entrance to the "garrets" or upper floor where most of the work is carried on, was kept close also.]

Thomas Lewis, cutter.—I cut now for Mrs. Holt at Lymm. I was cutting soon after I was 9; they begin earlier now. There's Henry my son; he began at 8¼. Why, the grown men and women among us can't read. There's not a proper scholar among all the cutters. No. 16.

George Lewis, cutter.—I am 12; began 2 years since. Thomas Lewis is my father. I generally come to work at 7, sometimes half past 6, sometimes 8, and stay till 7 or in winter till 8. About a year ago I got up at 3 a.m. and came to work and went on till 8 p.m., that was on a Friday. I haven't done so since; I have begun as early as 5 a.m. three or four No. 17.

Fustian Cutters.
Lymm.
Mr. H. W. Lord.

times, and gone on till 7 or 8 p.m. I go to the Baptist Sunday School.

No. 18.

Henry Moston, master cutter.—I have 28 frames in work; there are six children here under 13 years of age, 4 of whom are girls; between 13 and 18 there are eight males and two females; and 12 adults, seven males and five females; 10 are apprenticed; I take none under 10 years old as apprentices. Our usual hours are 10½ for work, and 1 and a half for meals; there is no regular time for beginning or leaving off, say 8 to 8; but it's all their own fault; if they chose to work steadily, there need be no night work. The men will be irregular, some drink a fortnight together; I have none that do, for I send them off if they drink; but they don't care, they are sure of being employed by some one else. It was the irregularity of the men that forced us to get children to cut; and they are nearly as bad, only we can have more control over them. They very soon get masterful and independent, and their parents can't control them if they would. What I give them to do is nine lengths in the day; ask them yourself whether they can't always get through that if they like; if they stop after, or come before, the usual hours it is because they have not done their nine lengths a day when the end of the week comes. I pay as the piece is finished, whenever that may be.

I see no objection to regulating juvenile labour, it would be good for all; they could do in half a day nearly as much as they used to do in a whole day; I don't like money got at night, and as for their age, why, a man is a brute who takes children so young as 7 or 8 for such work.

The work used to be harder for them; for the lengths were 7 ft. 2 in., but now they are 6 ft. 6 inches, and of course the further they had to reach forward the greater the effort to recover themselves.

Ours is too much a ready money trade; that is, there is no capital required; it is among the smaller ones, who are obliged to draw for each piece as it is cut, in order to pay themselves and their cutters, that most irregularity and longest hours prevail.

A number of the young women go wrong, as might be expected; in a small place like this every body is known; so when I say I won't ever employ a young woman who is unsteady, I don't mean that there is any arrangement among the masters to give characters among themselves, for there is nothing of the kind; mine are steady, and keep so; it is often the master's fault, if the workers are worse than they should be.

The trade is very low now; before this American war we were getting 11*s.* a piece for what we are now getting only 7*s.*

I was born a cutter, began at 9, and have been 35 years at it; I was the eldest child of six, and my father only earned 13*s.* a-week; things were twice as dear as they are now, that's why I went so young; but he brought us all up on that, and owed no one anything when he died; but he was a sober man.

No. 19.

Henry Dandy, cutter.—I cut for Henry Moston, sometimes come at 7, generally at 8, nearly always leave at 8. Am 11 years old, began 1 year since; used to go to school; could do my day's work in nine hours if I chose, and have an hour for dinner out of that.

No. 20.

Mary Dixon, cutter.—Am 13; began three years since, can't read; could do my day's work in seven hours if I liked; generally come at 9, and stay till 7 or 8; stop after 8 about once a fortnight; last Monday week was the last time, then I stopped till 8½. I hadn't come till 9½ that morning.

No. 21.

Elizabeth Forrest, cutter.—Am 10½ years; began at 9½ years old; generally come at 8 or 8½ a.m. and stay till 8 p.m.; my work I could do in seven hours working hard; we have half an hour both for dinner and for tea. I haven't been to dinner yet, though it is half past one; I haven't done my four lengths.

No. 22.

John Leigh, cutter.—Am 12; have been at cutting two years; come at 8 and stay till 7 or sometimes 8; don't think I could do my day's work in much under eight hours.

No.

John Johnson, master cutter.—Have been 29 years at it; began at 10; have eight frames; two are under 13, and five between 13 and 18; two are females, my own daughter one is; she began at 9 years old, and had but little schooling. I have to come at 5½ or 6 a.m., and stay till 8 p.m., because I can't make them all come at one time. We have children to work, because they are less irregular than grown persons, who won't work more than three or four days in the week; for one good journey hand there are 20 bad ones.

In Lymm I should say there is always one shop or another agate all Friday night; every shop is at one time or another except Henry Moston's. But that couldn't be, if the time was fixed by law, and they knew it must be observed.

Some time ago the masters agreed together that all the shops should open at 6 a.m. and close at 8 p.m. with a fine of 5*s.* for each time it was broken through; but before long several were fined, but would not pay, so it all fell through.

Trade is very bad, last week we were a'most clemmed to death but for charity.

———. I am ———'s overlooker; we have five under 13, three between that and 18, and seven over 18, out of them four are the master and his wife and two children. We often work all Friday night through, or at the least till 2 on Saturday morning, children and all; they do nothing in the beginning of the week, that's how it is.

No.

James Clayton, master cutter.—I have been 40 years in the business, and it's worse than ever; the earnings less and the men more irregular.

Trade is very bad now; the "undertaker" or master is getting from the manufacturer, from whom he has his work, for velvets 6*s.* 8*s.*; ⅝ velveteens 8*s.* 10*s.*; ¾ velveteens 9*s.* 10*s.* a piece; he will deduct 2½*d.* or 3*d.* in the 1*s.* from those sums for his own profit and "rent" of shop, tools, &c., and pay the rest over to the journey hand.

The highest prices we have had since '58 have been, for velvets 11*s.* to 13*s.*; ⅝ velveteens, 10*s.* to 14*s.*; ¾ velveteens 11*s.* to 15*s.*, and that was paid as late as January of this year.

As to the pay it isn't the manufacturers who reduce the pay, it's the cutters themselves by underbidding one another, particularly those who have large shops with a great supply of cheap juvenile labour; you'll find over 3,000 at Gravelhole and that way, chiefly children.*

I have 25 persons at work, two boys and three girls under 13; five boys and three girls between 13 and 18; eight men, and four women; five are apprentices, the youngest just 10. We usually work 15 hours a day; they have meal times out of that, but no fixed amount of time, above an hour for dinner and half an hour for tea. The children seldom work at a stretch more than 14 hours in the day; some will come at 5 a.m., some at 6, and so on; so that I don't get out of the shop till 10½ for three nights a week, and on Saturday mornings you might find even here at my place young ones working till 2 a.m. sometimes, only last Saturday they did, aye and till 3 and 4 a.m. now and then; it is all laziness; they won't work when they might.

During the time we had those regulations of our own for opening at 6 a.m. and closing at 8 p.m. there was more work and better work done, and every one looked the better for it. If you can stop the irregular long hours, it's all we want. We seldom have special orders to cut a piece by a fixed time.

No.

William Moston, master cutter.—I have 11 frames at work; 5 of the cutters in my employ are under 13, one of those is a girl; the youngest is 9 years and 5 months

* The actual number is at most one-third of that stated; and that of the children under 13 about 250.—H. W. L.

old; three are between 13 and 18, and three adults; two of the latter are females; 5 are apprentices, I take no apprentice under 10. It would be a good thing for all, if no child was allowed to work under 11 years old; perhaps that would be hard on parents, but there would be a difficulty in working in relays; the same that begins a piece ought to finish it, else some lengths of the piece would be done differently to others, and you could not trust to any one part being a sample of the rest. When we put two hands on to the same piece, they begin at opposite ends and work up to the middle; so there is only one line of variation where they meet.

A piece a week is what they are expected to do; pieces vary in length and breadth, but the time for any piece that a child cuts will be about the same for all. 10 hours work in the day is all I want; and if they would come to work regularly from 6 to 6 I should be satisfied. I open the shop every day at 6 a.m., and have to stop often as late as 10 p.m., for I stop as long as any one is at work; and those that don't come till late will work late. It is worse for master than for men these late hours, and the children are as bad almost as the grown ones. I don't let the apprentices stop after 8½ p.m., unless there is a special order to be finished by a fixed time; the work I set them for the day can be done in less than 10 hours without working hard, but they are sometimes disposed to work and sometimes not. They very seldom do more than the week's work; when they do, I pay them journeyman's wage; the rule for apprentice's wage is for the master to keep half the sum paid him by the manufacturer, and to let the apprentice, or rather his parents, have the other half, then the master furnishes shop, frame, tools, and light, beside learning the trade, and the parents find board and lodging.

I have seen children grown up round shouldered and knock-kneed; it comes of careless ways of standing; that is, unless they are very young; a good overlooker would prevent that in all other cases. I never allow any bad language to be used in the shop, but I believe many do.

No 26. *Samuel Jackson*, cutter.—I am going 10, began under 8; can read a bit. Work under William Moston; generally work from 7 a.m. till 7½ p.m. About 3 weeks since I began at 4½ a.m.; that was of a Saturday to finish off; had worked regular time the night before, perhaps a bit later, may be till 8½ p.m., not later than that. Have meal times, not always at the same time exactly, but much about.

No. 27. *Samuel Butterworth.*—This is my mother's shop. I am overlooker, she pays me wage for that and for cutting. There are 16 frames here; 1 cutter is under 13, and 9 under 18; only one is an apprentice, the rest all do journey work; they come at 7 or 8 a.m. and stop till 8½ or 9 p.m., but they are not regular at that; some days they all finish at 6 or 7, and others not till 9 or 10; the same cutters, I mean, and the same work; they have 1½ hours for meals, which they take much about the same time; it is in their own hands what they take, and when they take it.

We give them 9 lengths to cut on the 4 middle days of the week, 7 on Monday, and 6 on Saturday; 49 lengths of 2 yards and a few inches will make an average length of a piece, or about 100 yards. But it's no good dividing the work, they won't work at the beginning, and will do 14 and 15 hours a day at the end of the week; their parents can't or won't help it; they grumble at the end of the week, but won't make them come at the beginning. It is very jading work, and they are very tired after a big day's work. Many are crippled for life. If some bill doesn't pass, all will suffer.

No. 28. *Samuel Appleton*, master cutter.—I have 9 frames at work; 2 under 13, and 7 between 13 and 18, cut for me; there are 2 women over 18. I have 2 apprentices, they both were 9 years old when they were bound.

Where I used to work, very indecent language was often used; there were so many girls and boys and grown persons there altogether, and the master didn't look after us much, but left us to ourselves so long as the work was got through. I would not have any girls come, and cut here, who had been working for any time in a big shop. I wouldn't, for the harm it would do to my own children.

I don't see why relays should not answer; the sort of cutting of one child doesn't vary so much from that of another, as to make a great difference.

No. 29. *George Davies*, master cutter.—I have no apprentices. 2 of my journey hands are 14 years old and one 17; one of my own children began as early as 8 years old. We work from 6 or 7 a.m. to 8 or 9 p.m.; till 11 p.m., perhaps, once a fortnight; in winter the whole of us, all the trade, are later, scarce a shop is locked up before 10.

We are not always safe with the tools, they will break, the long thin knife particularly, and it may be 3 or 4 hours before we get agate again, and that lost time has to be made up. Nine lengths will take about 10 hours to cut, taking one length with another, and counting all the stoppages, from the knife having to be sharpened or breaking, and the "beaming up," and carding of each length before cutting.

There is more overwork than you will ever find out. I saw a boy of 11 years old, the very last week, who had been agate from 5 a.m. on Friday till 10 a.m. on Saturday morning. A child will follow the example of the grown ones about him, and if they play and are irregular, he does so too.

It is at night that the harm of the big shops comes, the master goes off and leave his journey hands, and then there is all sorts of talk. Only women should work at it. It is not men's work at all, if they could get anything else.

The evil is the working as they choose, the very children do almost as they like.

No. 30. *Benjamin Moston*, master cutter.—None of my 8 apprentices began under 9; but 9 is too young; it is quite a shame the early age at which they are put to it, it ruins a child.

I close at 8 p.m.; it is the master's fault if they are irregular; they come at 6 a.m., often not much before 7; from 6 a.m. to 8 p.m. they will do nine lengths of velvet, with about 800 races or cuts in each breadth, or 13 lengths of the doubled velveteen, that is, with 620 races on each side of the centre selvage.

Many shops are more irregular than we. I have seen that one across the field illuminated in the middle of the night.

We masters agreed to form rules that no shop should open before 6 a.m. or remain open after 8 p.m.; while they were in force there was more work done by the hands, and it was better work. For every body in the trade restrictions on the hours of work would be very valuable.

No. 31. *James Cheetham*, master cutter.—6 a.m. to 8 p.m., those are the regular hours for apprentices, they seldom work over that. In the shop above mine work is going on from 5 a.m. to 9 p.m., but I can't say that the children are agate all that time, I don't think they are.

It is very bad to put them so young to work; but the knocked-knees and round shoulders come from neglect of the overlookers. I was very near getting so, and should have been, if our overlooker hadn't licked me to make me stand properly.

I don't like that garret work, where the girls and boys and men and women are altogether. I wouldn't have a girl of mine in one of those big shops.

No. 32. *Elijah Collins.*—I have 4 apprentices, none under 12; they work from 8 a.m. to 7 p.m., we work more on Friday. Last Friday we began before 6 a.m. and worked till 11 p.m., and began at 4 a.m. the next morning. They have each of them worked once all night through in the last 2 years.

No. 33. *James Johnson*, master cutter.—I used to work as a journey hand 18 months ago; we generally worked

Fustian Cutters.
Lymm.
Mr. H. W. Lord.

all through Friday night; the little ones did too sometimes. The regular work set to an apprentice is 9 lengths a day, and that they can get through in 8 hours if they work without stopping; they are able to do that as soon as they have been six months at it. It is often difficult to make the children work steadily, for their parents won't allow them to be corrected.

I have 4 apprentices; one is bound for 3 years, the rest for 4. There are places where they are bound for one year only; the parents won't have them bound so long as they used to be.

No. 34.

Mrs. Bond.—I am a cutter, and so are my girls, there are two of them. Mrs. Holt gives us out what she can't get done in her shops. My husband cuts too. We have 4 frames at home. I wouldn't let my girls work in a shop along with the men and boys; no girl can do it, and remain a good girl. I never cut in a shop myself, but we all know enough about it; there is no chance for a girl with the late hours, and the bad language and that. Last year we were for 17 weeks, and had only 5 pieces to cut.

No. 35.

James Woodhead, master cutter.—I have 30 frames now working; none of my cutters are under 13; 8 are between that age and 18, 4 of each sex. My apprentices don't do more than 10 hours work a day, and have their hour and a half or 2 hours for meals; there are only two of them. I don't think relays would answer, the difference of the cut of two hands shows when the cloth comes to be dyed; it would be better to limit them at once to 6 hours a day, till they are 13, and let the piece stand in the frame for them to go on one day, where they left off the day before, and no boy should be put to it before 11, and no girl before 12.

It is unhealthy work; the dust is bad at times, not so much from the cutting as the carding before cutting. See the dust that woman is making; it is partly the flue of the cloth, and partly the lime which we put on to stiffen the thread, and get rid of the grease which would turn the knife. Mine is more airy than most shops, and we are not so afraid of open windows.

I really don't think that the masters in Lymm ever work their apprentices longer than from 6 a.m. to 8 p.m. That is long enough for you, is it not? Perhaps you may find here and there extreme cases happening occasionally, and more in smaller places out of the village; and I don't think they are in the habit of making the apprentices do in extra time what the journey hands won't do. The fact is that the journey hands do do, what they have to do in the week, but do it at all times and any time. My shop is much as the others; we are mostly all alike.

CADISHEAD, &c.

Cadishead, &c.

No. 36.

George Astall, of Cadishead.—I have 10 frames here, but I have a good deal done in the neighbouring cottages, where a family will work together; all miné but 3 are females, none under 13, 4 between 13 and 18, they are all girls. Five of the 10 are worked by my own family or relations; my son, who is married, acts as overlooker, and keeps them tolerably regular; they will come at 7 or 8 a.m. and stay till about 9 p.m.; they don't generally get through more than 10 lengths in 13 or 14 hours, including the hour and a half or two hours for meals; that is enough for me; we never work later than 10 p.m., nor begin earlier than 6 or 7 a.m., even on the finishing days, but we stop the money till the work is done, so they do it in the time. Long hours spoil the work of grown ones, as well as of young ones; the children will fall asleep over it. I have had some as young as 10 at it, but I think none in this neighbourhood begin so early as 8 or 9 years old; where they do begin so young it is through the parents, with 3 or 4 children perhaps, putting them to it at home. It is a bad thing having the young girls and lads hanging about late together, in some places a deal of harm has come of that. These that work for me can read; there is a night school of the Wesleyans here once a week, but there is not much learning among us as a class.

Mr. Jones.—I have been for 9 years master of the National School here at Irlam, it is a mixed school for boys and girls; 10 out of 38 boys and 7 out of 30 girls are children of fustian cutters; they are generally fair scholars for the time they are at school, but as a rule they always are taken away before they are 10 years old, and set to cutting; the girls are very irregular in their attendance before that age, for they have to help their mothers in the house, while they, the mothers, are cutting; when they are once taken away, they don't come back. I don't think that the homes of fustian cutters in this district are inferior to those of the agricultural labourers, rather the reverse. Irregular they are, piece-workers will always be so while they can; but the "play" on Monday is often no fault of theirs, for they often can't get started till late in the day; the pieces won't have come from the warehouses in Manchester, or at all events will not have reached the hands of the smaller cutters; then they have to "lime" the whole piece and wait for it to dry before they begin to cut, for it is not often cut wet.

[This statement of Mr. Jones, relative to the delay on Monday, was not confirmed to any great extent by persons in the trade.*]

No.

William Owen.—I should think there are about 300 fustian cutters in this district, Cadishead, including Hollinsgreen and Irlam; of those 100 would be under 13 and another 100 between 13 and 11. There are no apprentices in the district; more females than males work at cutting here. The business is just the same it was 50 years ago, there is certainly no change for the better.

It is naturally irregular, becoming brisk and slack suddenly, and the cutters make it more so by never working regularly when they can. The Saturday and Monday are always made away with here. In fact it cannot be more irregular than it is. The masters, generally, are opposed to irregularity, but have no authority.

The cutters are the most ignorant of people to be found, many don't know the days of the month, nor the changes of the moon. Many in country places begin before they are 9 years old, and never go to any school; the young ones will have to work, in some cases, from 4 a.m. on the Friday night on into Saturday morning. They will scarcely do 9 lengths a day, from 6 a.m. to 8 p.m., not the younger children; and the work is such that they are fit for no other trade that requires hard manual labour afterwards, for in 5 or 6 years their hands get too delicate; here, for instance, they can't work in the fields, which is the only other employment to be got.

I have about 30 frames; 3 of my cutters are under 13, and 6 between that and 18. We generally work from 6 a.m. to 8 p.m., sometimes till 10 p.m. on a Friday.

Gravelhole.

GRAVELHOLE, NEAR OLDHAM, AUGUST 1862.

No. 38.

Nathan Meanock.—I believe I am the largest direct employer of any in the trade of fustian cutting. I have four shops immediately under my own control, and give out work for about 100 other persons in cottages. Wilkinson and Newton in Warrington will probably give out more, but have fewer in their own shops.

The total number of hands in my shops is 218, and of them 128 are females; female labour is as good for cutting as male, and cheaper. I have 56 under 13, 21 boys and 35 girls, and 71 between 13 and 18; 31 of them are males.

* See Barton's evidence, p. 178.

Fustian Cutt
Gravelhole
Mr. H. W. Lo

We have no regular hours, there is no such thing as regularity in the trade; there have been scarce two nights this summer but that shop door has been moved at 4 a.m., and they will go on as long as daylight lasts and longer, yet there is no need for such long hours. I don't want any one to do more in a day than their nine lengths of velvet, and other work, velveteens or whatever it may be, in proportion, and that any could do from 6 a.m. to 6 p.m., allowing for factory meal times, and they would do it if they were obliged, and easily ; they only want a law to make them. Before this American panic, when the mills were working full time, our hands would often leave us and go into the mills for the sake of leaving off at 6 at night, and yet they couldn't be got to do it, while it merely depended on themselves ; they were not earning more at the mills then, and, so far as the nature of the work goes, they all prefer cutting to factory work ; but there are so many mills about here, and it vexed them to see the mill hands go by the window with their day's work over at 6 p.m., while they themselves would have perhaps half of theirs to do. But for all that so long as they were at cutting they would idle away their time ; many of them will come out at noon for dinner and not return for two hours, but go for a long walk ; still we are not so bad as in other places, I believe, for it is not the habit here to play on the Monday and Tuesday, and make it up by working all night towards the end of the week ; they often have to make up by an hour or two extra work, but it is very seldom that those who come as early as 6 a.m. stay later than 10 p.m., the worst is that they are dropping in at all times, and dropping out at all times. I have some hands who are tolerably regular, coming at 6 or 6½ a.m. and leaving off at 6 or 7 p.m., and they are by far the best hands, and do the most work.

I tried one winter to make them more regular, and insisted on having so much cut in each day and stopping at 8 p.m., but it was all no good ; there is nothing but an empty pantry, that has any effect with the adults, or the parents either.

What I have been saying applies almost as much to the children as to the up grown ones. I have no apprentices. I don't think there ever was an apprentice bound in this neighbourhood ; we generally take them on the terms of half earnings for six months, and a promise of 10*s.* or so as a premium to us for teaching them the business, which often does not get paid at all ; there is nothing to prevent their leaving when they like, and indeed when the mills are going, most do leave at 13, for then they can be taken on as full timers ; so that what with working so many hours before 13 with us at cutting, and then being full timers in the factories, and under no compulsion then to go, or to have been, to school, they never learn anything.

You will find scarce any of mine can read ; many of the parents can't tell a letter; as soon as they find their children can cut, they put them to it ; there is not more leniency among the parents than in the shops you may depend, all they look to is the money.

They are put to it generally between 8 and 9 years old, very few so young as 7, none of mine I am sure. The youngest I have now is over 9. They have their 1½ or 2 hours for meals according to the time they begin. This morning I said to some, "you 'll do 4 lengths by dinner time ;" some have not, I shall keep them till they have.

I expect a child after the first year or so to cut a velvet a week ; that will run on an average 100 yards long and about 900 races in the breadth of 20 inches ; the breadth runs from 20 to 24; they will get through from 8 to 9 lengths (of the frame that is) in the day ; the frames vary in length from 6 feet 10 in. to 7 feet. An adult will not generally do so much as that in the week, for they cut only the same, 9 lengths a day of ¾-velveteens, a material in which the number of races is less ; that is, they don't choose to do so much, and of course we do have more opportunity of keeping the younger ones to their work. If the children don't do what is set them in the day, we sometimes give them an extra length to do as a punishment, but it is very difficult to manage them; if the pantry is full, the parents come and threaten us with prosecution for overworking the children, and if the pantry is empty, then no work is too much and no time too long, and they entreat us to give them more lengths to do in the day.

The children have actually more labour in their work than the men in theirs ; take, for instance, velvets and ¾-velveteens, the former, as I have said, will have about 900 races in a breadth, or in other words the child (for velvets are always cut by children) will have to run up the frame 900 times in each of the 8 or 9 lengths, which will form the usual day's task ; in the ¾ velveteens (the cutting of which is always men's or at all events adult's work) though actually broader, there are fewer races, only from 700 to 800, so that for each of his 9 lengths he has to pass up by the frame only say 750 times, and 9 lengths is all we ask from either.

On Saturday we stop between 2 and 3 p.m. I used to pay at noon on Friday, but I found I never saw any of them again that week, so I now pay on Saturday, and if the week's work is not finished by 3 p.m. on Saturday, they don't get paid that week at all, that is the only way, and now that the mills are shut they will get the work done ; but often if the sashes of the windows are not fastened they will get in and begin to work at 2 a.m. on Saturday to make up lost time.

Many seem to delight in working all night, even in this neighbourhood, though never at the larger shops, I think. In Manchester they will work all Sunday as well often, at least until the beershops are open. There is no Sunday work anywhere here.

The nearest school to Gravelhole is, I believe, at Threadmill about a mile off ; some of the children live there, and go to it of a Sunday. I wish they could go of a week day too, for I have always found educated hands better to manage, they have more reason about them. I very much wish we had a church and schools in Gravelhole ; it would make a vast improvement.

There might be some difficulty in working by relays in this district, for if the mills are full, there would not be sufficient supply of hands, I think, as the half timers would be earning more than with us, and the coal pits too would take them off. Still if that were so, the wage would rise, if the work were in excess of the hands to do it, and then they would leave the mills and come back to us. There is nothing in the nature of the trade to make relays inapplicable ; as to any difference in the style of cutting it's mere moonshine, if the two hands that follow each other are good hands; an old woman's tale I call it.

After all the managers, masters, and overlookers are most to be pitied, those that do their work, in with the earliest and stay till the latest, from 6 a.m. to 11 p.m. at times. I wish to God we were under the factory regulations to-morrow. I should not care if we had less hands for a time, it might be worse just at first, but I am sure all would come right.

As for the effect upon their figures, why I myself had to leave off cutting for more than 6 months after I had been 2 years at it, and wear irons to straighten my legs, and I did not begin till I was 14, but then I was growing fast; if they come so young and are at all weakly, it is sure to have a very bad effect, being about their work so long.

There's no ill-treatment of the children, still I have had to pay fines before now when some of my overlookers have been had up by the parents for beating their children, when they were idling at work ; they are ready enough to cry out sometimes, but you won't hear much just now.

No. 38 *bis.*

Edwin Maenock.—I used to "overlook" in the upper shop, where my brother is now, but it did not agree with me, so he took my place, and I keep my father's books. It may have been the lime and dust of the cutting that disagreed with me, for I am quite well now, but the hours more likely ; they were very long, I have had often to be agate from 6 a.m. to 11

Fustian Cutters.
Gravelhole.
Mr. H. W. Lord.

p.m., and some of the hands have even come at 4 a.m. and knocked me up for the key of the shop; those would be the irregular ones, who would waste their time at first; those who do most work come at about 7 a.m. and leave at 7 or 8 p.m., in fact, those that have some sense in them.

The wage is so poor now that all are obliged to work every day to earn anything at the end of the week; when the wage was good many would not come for the first 3 days; as it is, many will be working here from 6 a.m. till 7, 8, and 9 p.m.; the little ones often have to work longer than the grown ones, not that they have more to get through, but that they waste more time; if the overlooker has to go away from the shop, they will lay the knife down and not do a stroke of work till he comes back; and if they are spoken to sharply, in ordinary times, that is when the mills are going, they'll toss up their heads and go away altogether.

All are very ignorant, the parents more so than the children, I think. We have got a Literary Institute here now which does some good; it is a kind of mutual improvement society, but that is for the older ones from 20 upwards.

There is a good deal of silk being cut in our place just now; that is much more injurious than the cotton velvet, more lime is used both to stiffen and also because the silk holds much more grease; the children don't cut that, none but our best hands, for the pay is higher, and the damage, if any, more serious, as the fabric is more delicate; still I dare say some of our best hands may be young women of 17 or so, and the silk is cut in the same room, where the other sorts are being cut by the children. It is that that makes them cover their noses and mouths, so many of them, just now.

Still as a rule the work is lighter and pleasanter than the mill work; that young man James Stott left the mill where he was working, to come and cut, because the room there was kept so very hot; fustian cutting shops may always be kept airy and clean and cool, if people choose.

A piece of silk will run from 26 to 27 yards in length, the pay for cutting that is now about 2*s.* 5*d.*, so these pieces of cotton will be nearly 4 times the piece of silk in length, and the pay nearly half as much again for the silk as for the same length of cotton, though the time and labour is about the same for each.

The patent cloths bring 2*d.* a yard to the cutter, or 3*s.* 4*d.* a piece of 20 yards, but they don't often come, and are only adult's work.

What they call slips or doubles are woven so that 2 races are cut with one thrust of the knife, there are about 400 of such double races in each half width; the whole breadth of the piece is 800 races, but that is, in that fabric, too wide to reach across, so the piece is doubled and cut up one side, and then turned and cut down the other. Seventeen lengths a day of the half-width or slips is what we expect.

No. 39. *Alice Ann Greenhatch.*—I am 13, and have been at cutting for 2 years; I cut for Nathan Maenock; I do 7 lengths a day and 4 on Saturday; my hours are from half-past 6 a.m. to 7 p.m., but sometimes I stay till half-past 8 or 9 p.m. I don't work fast, but I could do my work quicker if I was forced to. I can read a bit.

No. 40. *Samuel Wild.*—I cut for Maenock, began at 8 years and 3 months old, am now 11. I have to cut 8 lengths a day. I come at about 6 a.m. and stay sometimes till 8 p.m. I can read. I can't spell my name.

[In the above, as in many other instances, especially in this district, I found that what the child called "reading" was spelling out letter by letter words of one syllable, and arriving now and then at a correct pronunciation of the whole; they seemed quite satisfied, by this means, of their superiority over their illiterate companions.]

No. 41. *Joseph Fitton.*—I am overlooker of Mr. James Platt's shop in Gravelhole; I am now 25 years old, and went to school till I was 11, very few do or can do that now. We have had several here who began to cut before they were 8 years old. I don't think any of those now here began so young; the youngest here is over 9; there are 14 under 13, and 18 between that and 18; there are 27 adults, in all 38 females to 21 males.

Before the coal pits were regulated, the children used to be put there at 7 years old, but now ours is the only unregulated trade in the district, so the young ones all come to us.

They have to do 7, 8, or 9 lengths a day according to their size and the time they have been at cutting, but it's no use giving more than they can do; if they don't get through the day's task I set them an extra length as a punishment. Taking one day with another I dare say they will average 14 hours a day, including in that the meal times, for which they always have 2 hours and generally more.

No. 42. *Mr. James Platt.*—What my overlooker, Fitton, has told you is correct. I should say that the children are often at the shop from 6 a.m. to 10 p.m. We have sometimes tried to force them to get through their work by setting them a certain number of lengths, 4 generally, to cut before half-past 12, dinner-time, and not letting them go till they have done; they generally get their hour all the same, only later, but sometimes they'll have only half an hour; they never eat it in the shop, there is always some friend close by, if they live any distance off, where they can go in.

I think none should commence cutting before they are 11 years old; under that age the work is too hard, but a child of 11 could easily do within the factory hours all that they now spend their 14 hours over. There would indeed be no way of compelling education in that case, but I fear that the system of relays would be impossible. We should never know to which of two children, who cut the same piece, to attribute the faults; they would often have to stop work in the middle of a length, and a fresh hand would be sure to show there, and indeed anywhere more or less; the style of cutting varies so, and we could not have half the frames idle half the day, and the cutting of each piece spread over a fortnight; when any piece is more than a week about, I make a deduction from the pay, for then there is so much of my overlooker's time, for which I pay, not represented in the price I get from the merchant; for a similar reason it is important that we should be able to trace the faults; the merchant deducts from our pay for every fault in cutting, and we must know from whom to deduct in our turn. The factory full time would be very good.

No. 43. *Joseph Platt.*—I have a large shop at Gravelhole; there are 36 cutters in all, of whom 24 are females; 7 are under 13, and 16 between 13 and 18. Nearly all mine can read a bit. They have much improved to what they were 20 years ago, but there is room for much more.

I expect a child to cut 9 lengths a day after the first 6 months, but many do not, though all could, at all events in the time which they do take about their work in the day. I find it no good to set them extra lengths by way of punishment, so I very seldom do: occasionally I don't allow their meal times to those that get behind with their work; they will waste time and be irregular, coming at any time from 7 or before till 9 a.m. and going on till 10 and 11 p. m. at times in winter. Only yesterday I sent a girl away who persisted in working till 10 at night; half-past 8 is my time, if they would keep to it. The parents when they want money, come and ask for their children to be set 9 lengths, but if they can't do it, it is no good to them and a loss to us.

I think Government regulations would be very good for us all, and I do not fear the risk of driving the trade back into the cottages and homes of the workman, where the Inspector could not reach them; the tendency is for the trade to get out of cottages into the shops, where, bad as they are, they are at all events

367

less irregular than in the cottages; the work is done better when there is more regularity, those that give us the fustian to cut have found that out already, and if we are made more regular, they will come more to us.*

I suffer myself at times from the lime dust on my chest; it would be far better for the children not to be allowed to be so long as they often are at work, and in such an atmosphere, but the early age is the worst of all.

Fustian Cutt — Gravelhole

Mr. H. W. Le

No. 44. *Mr. John Miller.*—I am master of the National School at High Crompton; we are about a mile from Gravelhole, and many of the children, who cut fustian there, live here.

Some of them, but very few, come to Sunday school, they have no time for any other, they are very backward and unmanageable, I have to put the older girls into classes too advanced for them, for they would be ashamed to be classed with the little ones as they really ought to be, and they only keep the others back. Only the other Sunday my pupil teacher came and told me that the fustian cutting boys in his class would do nothing but play at "marrying," that is, heads and tails with halfpence; the others, mill hands chiefly, never give us any such trouble, and just now there is a better average of children at cutting, for many of the unemployed mill hands, half timers and others, have gone or returned to that work.

Those that live up at Gravelhole are worse than they are here, for the example there is all one way; here the mills' regular hours and education have had some slight effect beyond the mere circle of those employed at them.

Some little while since a female teacher started at Gravelhole an evening school for cutters, free of charge, but she had to give it up, for only one or two came.

10 or 15 years ago they were a much worse lot up there; since that they started a Literary Institution; I went there at its first beginning; I remember being told of some one wanting to know at one of their first meetings what the word "female" meant; and after turning it over in their minds for some time one said quite seriously "I think it's a wild animal that come out o' t' sea." But they are better now. I have no doubt that that really took place.

I never have heard any complaint of ill treatment, I think the children are treated well; it is the system or the want of any system in the trade, and not any individuals, that causes all the mischief. A number of the children who reside here are crippled; the lameness in the gait of the girls shows it, though the boys' dress lets it appear more.

We have a fair number of children from Gravelhole in our day school, some 80 or so; most of them will be cutters' children; it is only quite lately that so many have come, within the last year and a half; they have always been taken away at about 9 years old, except those whose parents are master cutters.

No. 45.

Henry Wood.—There are only three cutting shops in the neighbourhood of Shaw besides my own; in all four there will be some 50 children altogether, those mostly females; few grown up persons cut here. We are every bit as bad as other places, I expect. I make with mine 14 and 15 hours a day as often as not; they begin many of them as young as 8 to cut. I did not till I was 10, but I had to leave off for a time, because I was growing so crooked. It's quite a sight, is a cutter now. There are plenty of schools, three here, but they don't go before they are put to cutting, and can't after.

Relays would work well; there is not such difference in the cutting after one has ceased to be a learner, and as for the difficulty of finding out which of two children on one piece has made a fault, that has been found out by some one very fond of making a difficulty.

ROYTON, NEAR OLDHAM.

Royton.

No. 46. *Mr. Kershaw.*—I have been in practice as a general practitioner in Royton for 23 years, during which time as certifying surgeon of factories and as Poor Law Medical Officer I have had many opportunities of observing the physical condition of the operatives in this district.

The improvement in both mental and physical condition of those who have been under factory regulations since the passing of those Acts has been most marked; equally marked is the degraded position of the fustian trade, which alone of those exercised here is totally unregulated.

The children are pale and stunted in growth, undergoing an actual physical deterioration; they frequently grow deformed; I can show you several close at hand; they suffer from partial dislocation of the knee and ancle joint, and from distortion of the spine. James Cocker, whom you have been examining, is an instance of both; the patella of his right knee is turned quite round on one side. Occasionally, also, from disease of the hip joint. I am now attending a girl of 16 who is so affected. I have no doubt that the early age at which she was put to cutting is the cause of that, although she had left the trade before the disease thoroughly developed itself.

Bronchitis is also very prevalent among cutters; that is produced by the lime dust and flue which arise from the carding of the pieces that they cut. In any cases of a previous tendency to phthisis or consumption such an atmosphere would be especially injurious, inasmuch as the introduction of any foreign body into the lungs will greatly accelerate that disease. The Registrar's return for this district shows a per centage of deaths from consumption considerably above that of other fatal complaints. The humid parts of Lancashire are always conspicuous in that respect.

I have remarked in the youthful cutters of both sexes a very general arrest of bodily development, and as a consequence, a functional derangement of the system at puberty; in the females this is particularly noticeable. I attribute it entirely to the long hours during which they work at an early age. I cannot, indeed, point to any specific disease as the direct result of such a state of things, but it is obvious that where the operation of a natural law is materially interfered with and checked, there must at the very least be established a predisposition to succumb to disease of any kind.

The nature of the work when carried on for an unreasonable length of time by children of tender age, has the further evil of exaggerating the development of one set of muscles at the expense of another. It is not like the work of piecers or tenters in a mill, whose occupation consists in watching the course of a piece of mechanism, and moving with the ordinary action of walking from one point of the machine to another, but it is a continuous unvarying motion, a swinging forwards and backwards on the left leg, with an oblique inclination of the body towards the right.

Still there is nothing to make the trade prejudicial to the young, if under proper regulations. I see no reason why a child of 8 years may not cut fustian for the same hours in each day as the half timer under the present Factory Acts is allowed to work. Physically speaking, there is nothing to be gained by not allowing a child to cut under such restrictions, till 10 or 11 years of age; morally and mentally, there is much to be lost, if the opportunity of compulsory education as a condition attached to juvenile labour is foregone. That principle is, to my mind, the gem of those Acts.

It is very important also that the clauses as to the lime washing, &c. should apply; my own opinion is that there should be also a limitation on the number of persons employed in one room at the same time, that number being proportioned to the number of cubic feet in the room.

It should be remembered, moreover, that the pressure of this unregulated trade operates very hardly on the

* On the other hand, a gentleman in one of the largest houses, that give out fustian to be cut, told me that his sole reason for going to the large shops is that there is less trouble to distribute among 2 or 3 masters, than among 20 or 30 families of working cutters; and that his experience is not especially favourable to the shops as compared with home work.—H. W. L.

Fustian Cutters.

Royton.

Mr. H. W. Lord.

mill owners in the neighbourhood. The chief work of the half-timers in a factory is connected with throstle spinning, in which their occupation is piecing the threads that break, and renewing the bobbins from time to time. A child of 10 or 12 will do this as well or better than an older one, being smaller and more nimble, and having a more delicate manipulation ; but at fustian cutting in good times, a child of that age, working the hours which they now do, can earn more than twice as much as the manufacturers can afford to pay a half-timer; there is consequently, here, in such times, a great scarcity of half-timers, and so mill owner and child both suffer, and the parents profit by the sacrifice of the child's body and mind.

No. 47.

The Rev. R. Hill.—I am the incumbent of Royton, and necessarily see much of the fustian cutting population in that village. They are in a lamentably depressed state just now, but at all times they are very ignorant and irregular in their work and habits. The early age and long hours produce much deformity in growing children, which, if they are not taken off from it, becomes permanent. The knee, hip, and spine, are the parts affected; there is not so much of the high shoulder I think. Some have worn irons to get their legs straight.

Morally speaking, the worst of all about it is, the young ones so very soon being quite independent and doing as they like. I do not think any evil comes, or need come, of the mixing of the sexes, when they are properly looked after, and keep regular hours, but there are few shops where such is the case.

Very few connected with cutting ever go to school, either in the day, before they are set to cutting, or at night afterwards. We have a night school from 8 to 9 on Monday, and another on Tuesday and Thursday from 7 to 9, so that they might come, for they don't ever work much on the first two days.

There are not many half-timers here ever employed in the mills, only 100 boys and girls ; they can earn more at cutting. In Shaw, a village rather larger than Royton, and almost adjoining it, there are fewer cutters, and consequently many more half-timers.

The present cotton famine makes this a bad time for school statistics ; the school money is the first to be saved in the calculations of the parents, and the want of decent apparel keeps them even from Sunday school.

No. 48.

Thomas Shepherd.—I have the greatest number cutting for me of any in Royton ; there are three shops with an overlooker to each ; 93 persons in all ; 11 boys and 11 girls under 13 ; 13 boys and 34 girls between 13 and 18 ; there are very few cutters of any age, old, that is ; all get to the mills as soon as they can work full time ; by the time they have been there a year, at 14 that is, many of them may have 2 or even 3 looms to tent, and get 5*s.* a week for each loom, but 6*s.* is the most that any child will earn in better times than these at cutting. The half-timers at mills don't tent, but work as doffers and throstle-piecers, and get only about 2*s.* 6*d.* a week ; so that it is much more profitable for the parent to put a child to cutting up to 13 ; even in these bad times a child will get from 4*s.* to 4*s.* 6*d.* at cutting after being 6 months or so at it.

The neighbourhood of the mills has always a great effect on the cutting in this district ; so far as the morals and manners of the cutters go, I think a very good effect ; they are much more particular about morals here than where there are no mills or schools, now that mills and schools go together ; but when the factories are on full time there is a scarcity of hands for our trade, and we have to catch them under 13.

Now that the mills are closed we have much more control over our hands ; consequently the work is more regularly done and in more regular hours ; they are much more manageable. They used to get in at the window and start work before the overlooker came, at any hour of the morning towards the end of the week when they had wasted the first half of it ; now we nearly always close at 8 p.m., except when one may want to stop half an hour or so to finish a piece ; they come at all times, from 6 a.m. to 9 p.m. Nothing short of compulsion will make them keep to regular times ; there is a girl of 17 now cutting for me ; only last week she came out of a mill, where of course she had been working from 6 to 6, and on the second morning that she came to cut, she wasn't here till 8. It is only the steam-power not waiting for them that gets them to come so regular at the mills, I believe ; I know I see many hand reelers* for instance go by here to the mills much later than 6 a.m.

Two years ago our hours were much worse than now ; they would stay till 10 and 11 at night, and at some places all night. It might be nearly as bad again, but there are more mills now, and if they were working the parents would send their children there, if we were to overwork them so much. Of course as they are just now so much in our power, that power might be abused by making them work longer hours, but I think very few here would do so. The fact is that the work of a child so overworked becomes worthless after a certain time ; I have quite given up both punishing by setting extra length and insisting on a piece a week, and pay them at the end of the week by the number of lengths they have cut, so that if they have not done their piece, they only get paid in proportion. You see I don't want to draw my own money from the warehouses every week ; when a master has no capital, that is necessary, and consequently he must force his hands. We have no apprentices in Royton, but generally take them on half earnings for 12 months ; after that time they can work for whom and what they like. I have none before they are 10 years old, very few that is, I have only three now under 10, and none ought to be. The length of the frame varies from 6 feet 6 to over 7 feet ; that young woman has a shorter frame than any ; I had it made so on purpose for her ; she has only one, the left, arm ; but it wouldn't do to have shorter frames for the children, while the others had longer ones, for a length is a length with them whatever the length.

Nine lengths is a fair amount for 10 hours of work ; one girl here of 17 who is very regular and a good worker, comes at 6½ a.m., and generally gets through her 10 lengths by "baggin" time,—tea time, that is 4½.

Certainly they do get deformed sometimes, in-kneed, but that is because they are allowed by the overlooker to get into careless habits of standing as they work. My daughter, who is 17, began cutting at 9 years old, and she is as straight as ever.

I think relays would work well ; the difference of work in having two hands on one piece would scarcely show, if the one always finished one length and the other began a fresh one ; it would not do for them to leave off in the middle of a length, the difference might show then. We often put what we call a level on to the end of the knife handle to keep it even, as they press it down to the surface of the cloth, while they thrust the blade through the waft threads, and that might be done with all the relay hands.

There is a difference in the cutting of two hands, but that difference arises from the way in which the overlooker "makes" the knife, rather than the way in which the hand holds it ; he would have to take care that he made the knife for each of the hands, to be employed on the same piece, so as to be of the same thickness, and to rise the same height above the guide; and in like manner as to tracing the faults, he would have to mark on the piece the number of lengths which the one child was likely to do, and start

* This remark was confirmed by the opinion of a gentleman of much experience in the habits of mill hands, who stated, by way of accounting for it, that the hand reelers do not, as is the case in all power spinning, form a link in a continuous chain of workers, all of whom must stop, if each does not so complete his task as to keep the one employed on the stage next to him in the process of manufacture always sufficiently provided with material to be worked, but are themselves at the end of a series, the yarn passing from them to the packer, to be made up for the dyer or export, or stored for use, as the case may be.

the second one after that mark; we are doing it or something very like it continually. There are to-day three pieces in my shop wanted as soon as possible; I have set two cutters to each, having first marked it in the middle; one cutter will begin there and one at the end as usual; so it will be on two frames at once; so one child might cut from the end in the morning the other from the middle in the afternoon; it can be easily managed; perhaps the consequence might be that one overlooker could not look after so many as now; I don't know that that would not be an improvement also.

There is very little learning among them. I expect very few of mine can read; if only for that, the Factory Act would be a good thing for us.

No. 49. *John Shepherd.*—I am overlooker in my father's shop at Royton; there are 50 cutters, most of them young and female; 14 under 13, the youngest now at work is between 9 and 10. We don't average more than 12 hours' work, but still it is often 41 hours when they waste their time. I am here from 6 a.m. to dark in summer; till 7½ that is just now, the beginning of September; in winter often till 10 p.m., then they come later.

We are more lenient with the young ones in Royton and Gravelhole than they are in some parts, for the factories keep us here in bounds, there are so many of them all round us between Rochdale and Oldham, that when they are on full time, we can't overwork the young ones so much, for the parents won't have it, if we could.

None go to any day school, there is no time; they generally leave off too late even for night school; I think that most here have been to school before they began cutting, and can read a bit.

[Very few could do more than spell.—H. W. L.]

No. 50. *James Hewitt.*—I cut at John Shepherd's in Royton; am 10 now, was going 9 when I began; generally work from 6 a.m. to 7 p.m.; cut eight lengths in that time; am always very tired by 7 o'clock; go to Sunday school now, can read in spelling book, not Testament.

No. 51. *Peter Pimlow.*—I am 10; have been a few months cutting for John Shepherd; don't do more than seven lengths a day yet; was half-timer for two months in mill before, went to school then, but never at any other time; can't read.

No. 52. *Sarah Dunkerley.*—I cut for Thomas Shepherd; am 9 now; began before I was 8.

No. 53. *Robert Taylor.*—I am 10; began near two years ago. My brother Thomas is 12, he began three years ago; we both cut at Shepherd's.

[These three children, the Taylors and Dunkerly, could only spell very badly.]

No. 54. *Edward Low.*—I cut for Thos. Shepherd; am 16, began at 12 years old, went to school till then. Can read a big bit; not many others can. Work from quarter to 6 a.m. to 6½ p.m.; and generally do 10 lengths.

No. 55. *W. Sutcliffe.*—I have a cutting shop at Edge Lane, Royton; about 20 hands, mostly young, 5 under 13; they come to cutting often at 8 years old and younger too. We make 14 hours a day here; often from 6 a.m. to 10 p.m. some of us are agate; I don't know who is most to blame, master or men, but it's a poor thing when a man works 52 hours a week and gets 4*s.* 9*d.* for it; that is what a piece is.

Scarce any of mine can read, perhaps none. Ever since the Factory Acts passed we have been getting worse and worse; the parents put their children to cutting as young as ever we'll take them, and as soon as they can work as full-timers they go to mill; so in bad times at the mill like these they all come back to cutting and ruin the trade: there are hundreds in Royton who can cut besides the regular cutters. It does indeed want some regulation, does cutting, for the children's sakes and our own too.

No. 56. *Mrs. Cropper.*—I live in Royton; 3 of my children cut fustian; John, the eldest is 18 now, he began at 9 years old; he is almost a cripple through that work; he left it and went for a time to a mill, but now he has gone back to it and is worse than ever. He wants to wear leg irons to get his leg straight, but the doctor says it isn't a case for which the parish can give them; he goes to night school, but I don't think any other cutter in Royton does. Then there's Ruth here, she's 15 and can't read; she began at 8 and a half years old. Look at her right foot and her right knee, that's all of cutting. They have sometimes been at it from 5 and 6 a.m. to half-past 8 and 10 or 11p.m., that was two years ago and more. I know that the work they have set them, need not take more than 10 hours a day, that is if the gaffer, (overlooker) puts their tools all right without delay: there's a deal of time lost when there's a master or foreman who doesn't look after them properly.

James Cocker.—I live at Royton; am 20 years old; No. 57. have been a weaver lately; used to cut fustian till I was 13, then went to mill as full timer; was bound apprentice for 12 months at 7 years of age to learn cutting; as soon as I got out of being a learner I used to work at the end of the week from 7 a. m. to 11 p.m. often.

I am very much in-kneed; my right knee cap is turned quite on one side, and that's with cutting, so the doctor says.

[This and several other cases I examined with the surgeon Mr. Kershaw, whose evidence is to be found at p. 15.]

No. 58. *John Ellidge.*—You won't find another place like mine in the trade, for my work is confined to silk cutting almost exclusively. I have 3 shops, one at Pleasant View, one at Gravelhole, and one at Chadderton Fold; all in this district near Rochdale; and I cut almost entirely for one house in Rochdale, having scarcely anything to do with the Manchester people: just now however work is slack with us and I have taken in some velveteens and cottons from Manchester.

The house for which I cut is still paying us the same wage that they have done for the last 6 years. We are only working 3 days a week, Wednesday, Thursday, and Friday, but in that time the children will earn from 4*s.* 6*d.* to 7*s.* 6*d.*, and the men from 7*s.* 6*d* to 10*s.*; the earnings would be double that if we were on full time. I have a few, some half dozen, working every day, but they are only learners. This has been going on all this year, but I am sorry to say that not one that I know of has taken advantage of the three spare days in the week to get any schooling; the parents don't understand the advantage of education.

I have 88 persons cutting for me; of them there are 12 boys and 11 girls under 13; 5 boys and 23 girls between 13 and 18; 24 male and 13 female adults. I don't think many begin to cut under 8 years of age; I have none, but scores do, going 9. I dare say a good many of mine began it under 9; they work till they are 13, and then go as full timers to the mills; that they do even with us, though there is not such a difference in favour of the mill wage.

Our hours are from 6 a.m. to 8 p.m. I can keep them to that more or less regularly, now, at all events. A great deal depends on the master; it is not all the fault of the hands if they work at all hours, but it makes cutting look a very degraded job by the side of other trades, the working, as so many do, from 6 a.m. to midnight.

Speaking generally, throughout the trade, there is no opportunity for education, and no care for it. Scarcely any of mine can read, although there are schools to which they might be sent close at hand; if, however, we were on full time, they would not be able to go. In my opinion it would be most beneficial if children and young persons had fixed and proper hours for work and for recreation, and had to attend some school regularly. I see nothing in our trade to prevent it.

Robert Wood.—I have 31 persons cutting for me No. 59. in Castleton, near Rochdale; 26 are females, 10 are under 13, 15 between 13 and 18. Our proper hours are from 7 a.m. to 8 p.m., but often enough we go on till 9, 10, and occasionally 11 p.m.; the winter is our longest time. Most of mine can read a bit, they

Fustian Cutters.
Rochdale.
Mr. H. W. Lord.

have been to school before they came to cutting, and keep it up at Sunday school, those that can't are generally colliers' children The people about here are looked after a good deal more than they are up Gravelhole way; but the colliers, many of them, seem beyond reach of reason to see the good of giving their children some chance of education. I think relays would answer with us; if the result was to diminish the supply of hands, and we were limited to fixed hours, the warehouses would have to wait, that is all, or to give us longer time to complete the orders, and they could do either now if they chose, and would, if we were regulated by the Factory Acts. I only wish we were.

WARRINGTON, July 1862.

Warrington.
No. 60.

James Barton, (53, School Brow).—I have 14 frames now in work; all that cut for me are females; I have recently ascertained by personal inquiry that quite four-fifths of the cutters in Warrington are. Most of the cutting in this town is done in shops and not in families: I should not think there are four houses here in which there not others than the mere members of the family employed: about 10 employers will have from 20 to 50 frames, and about 10 more from 12 to 20. The rest, who will be some 45 in number, will average six frames.

There are now in round numbers 850 cutters in Warrington; that is including the masters who cut in their own shops. Of these quite 600 are under 18, and out of that 600, 450 will be over 13; most of those being girls between 13 and 16. Very few are put to it here under 10 years of age. I have to-day two or three under 13 and five between 13 and 18; but they change about from week to week: not many are bound by regular indenture, most are merely under an agreement with the parents for a fixed time, three or four years, to be learned the trade and take half earnings. There are not three indoor apprentices in the whole district: some time ago there were several cases brought before the magistrates, in which they would not uphold the indentures where the child was bound unreasonably young, and since that time there has been much less binding. Still, whether bound or not, a great number begin to cut in shops at 10 years old. Twenty years ago they used to be bound for five years, and then the bulk of them would not be put to it before 13; now they get out of their time, when they are bound, at about 14, and then there is no controlling them either by master or parent; there are very few who succeed as domestic servants, they don't like it; most come back to cutting. The rising generation of girls has suffered in comparison with those who are grown up: when our wives and our mothers were children, and used to cut, they were not put to it so young, nor had they to work so long as they have now. I think they learned better how to perform the duties of a household than girls can now in this trade; the trade itself too was less loose then, the work came in more regularly and was more regularly done. Both masters and workers used to be as respectable and regular as in any trade; I cannot say that for us now.

There is a great deal of long hours made here by the children. Many work from 15 to 18 hours, for one or two nights a week; I have seen on Wednesday and Friday nights many shops, particularly the smaller ones, open all night, and 4½ hours is the most that many are closed for, for the whole night, time after time. Within the last two years there have been two fires in cutting shops in this immediate neighbourhood, which were attributed to the children working long and late without proper supervision.

It is true that times are very bad with cutters now so far as the wage they can get for their week's work; that is a great temptation of course to a parent to put as many of his children to it as he can, to add to the earnings for them all: but in this town there are many fathers earning their 25*s.* a week in other trades, who put their children to cutting at 10 years of age instead of keeping them at school, and most of the earnings they bring home go to drink.

There is much forcing in some few places, they will require 60 lengths a week, and that is a good 70 hours work. I think few children will do a length an hour; that boy there cut 11 lengths last Friday, he was at work from 6 a.m. to 9½ p.m., and hard at it, except meal times; the mere cutting would not take more, but you must allow quite 10 minutes for "beaming up," fixing, that is, the fresh lengths to be cut in the frames, and for marking the weaver's faults, and sharpening and "fettling" the knife now and then.

The liming is generally done over night for the next morning so as to dry; it is very seldom cut wet; the lime does not do any harm in ordinary cases, but any one, who has bad lungs, can't stand it. I know several who have had to leave.

My usual hours are from 6½ a.m. to 8 p.m., 13½ or 14 hours a day mostly, but there is no regularity in the trade. They generally go home for their meals, that is so throughout the the town, for they mostly live close at hand; the few that don't, bring their food and eat it in the shops or where they like. As they are piece workers, they take their own time; that is generally half-an-hour for breakfast, an hour for dinner, and half-an-hour for tea; the apprentices get about the same, for the master or overlooker must get his own meals, and they would never do any work when he was away.

There some smaller shops however, one or two of the most regular in the time of opening and closing, where they gain their regular hours at the cost of their meals; there is so much work to be got through in the day of 12 hours, or so, and I know that the children often bring their food there and eat it at their work, or stop only for a few minutes, but you cannot find that out for yourself, they won't tell you so.

As to the loss of the Monday through having to wait for their work, there is no such thing anywhere I believe, certainly not in Warrington. Here we frequently have work for a month before we work it; on the other hand we don't know from day to day what work will be sent from the warehouses in Manchester. I know Cadishead, they have the same facilities of water carriage as we, a canal boat twice a day; no railroad indeed, but they are half-way nearer Manchester than we are, on a good turnpike road, and I know the bulk of their work for the next week is brought back on the Saturday afternoon, the last week's work having been taken in the same morning.

The cutters are a very uneducated class, but they are a little better than they were, that is to say the very young ones, those now under 13, are better than the older ones, that is owing to the enlargement and increase in the number of the schools within the last five years. I have ascertained that 60 per cent. of those under 13 can read, and only 40 per cent. of those between 13 and 18; the adults are worst of all, there are many of the 60, or so, master cutters who cannot make out their own accounts, not more than 30 per cent. of them can; most of them cannot write, and only a few can read decently. I did not test the assertions of the children under 13, who said they could read, most probably what you suggest, would prove to be the case, and their reading would be only spelling the words. From what I have seen of the literature which those young persons between 13 and 18, who can read, do read, it is not likely to do them much good, it is all of a very light low kind.

I was speaking only yesterday to two master cutters, one employing eight, of whom six were over 13; and the other 15, one of whom was over 18, and they told me that not one person in the employ of either could read.

Many of the cutters here get into the factories as soon as they can, but none of the mills here employ half timers,* I think; so that even if the children who cut fustian wanted to be taken there under 13 they could not be; for girls under that age there is no trade but ours, and there is no schooling for them when

* Mr. Rigby, of Cockedge Mills, confirmed this statement.

they are once at it. I do not think, however, that they deserve to be called immoral as a class. There are some shops badly managed, particularly in cases where one master has two or more shops apart from one another. I was in one of such on business last Thursday night latish, and there were three or four young men of other trades, whose work was over, "larking" as you may call it with the young women, there was an overlooker there who ought not to have admitted them or allowed them to stay, but he took no notice.

No. 61. *The Rev. R. Rolleston.*—I have been Incumbent of Trinity Church, Warrington, for two years; some time before that I had been for two years curate at the parish church.

There is a large night school here for girls, in which I take a great interest. It has been on foot for two years; none much under 14 are admitted. There are 420 now on the books, and of them nearly one half, 196 is the exact number, are fustian cutters, 113 come from factories, and the rest from domestic service and other employments; 173 of those cutters, and 103 of the mill hands are under 18 years of age.

If your information that the number of mill hands in Warrington between 13 and 18 is about 500, and the number of fustian cutters between the same ages about 450, be correct, and I have no doubt of its being so, the difference in the numbers of those two classes attending the school may, I think, be accounted for by the fact that a very large proportion of the mill hands here are Irish Roman Catholics, and although we admit all denominations, I know that there are, comparatively, few such in the school.

We have had 200 who could not read, but most who come now know their letters. Our nights are Monday and Tuesday from 7 to 9; we could not keep it open any later in the week; none would come, they would be working. The average attendance is now 150, but in winter over 200.

I think that those cutters who attend, have many of them, as it is, to work overtime to fetch up the time they lose by coming. Only the other day one of the girls, I know, was sent away by the master for whom she was working because she left her work to come to night school.

I do not think the cutters in Warrington are either physically or morally so very inferior to the factory people, who are the only other class of female operatives, I believe, in this place; ignorant, indeed they are, and the young girls use, habitually, very bad language, "terribly obscene" it was called to me by a person to whom I spoke on the matter, and who knows them well; but I believe it to be a coarseness on the surface, and I do not think their lives more immoral, or their dispositions less tractable than their neighbours'. Nor are they especially unfitted for domestic service. I sent one to temporary service with some friends of mine some short time since, and at the end of the period they wished to keep her permanently; she is now in service in the town. There are good and bad; it will not do to select the bad ones and stigmatize the class.

I have not noticed much deformity; so far as the knee is concerned the women's dress would conceal that, but it would be observable in their gait. I have always looked on them as a healthy class; they are depressed and wretched now, perhaps, but that is through want of food and clothing from the badness of trade.

No. 62. *Mr. Lee.*—I have been a master in the National Schools in Warrington for 16 years, and know a good deal of the state of the poorer classes; I am now the parish clerk. Cutting is a bad trade for the girls as it is now managed; they very soon grow independent and bold, and learn bad things, particularly when they have to work with the men and boys in the same shop. Few persons will engage a girl as a servant who has been in a cutting shop; it is almost a byeword "send a girl to cutting to ruin her."

No. 63. *The mistress of the Parish Church National School for girls at Warrington.*—Out of 130 girls here, only 7 are children of cutters. In the last five years we have had but 20; they most of them continue to attend Sunday school, but I cannot say that they are good or regular. Ten is the latest age to which they stop at day school.

[At the Heathside day schools, out of 340 boys and 160 girls present when I visited them, only seven of the former and two of the latter were cutters' children, and all the nine were under 10 years of age except two, whose parents were master cutters.]

No. 64. *Mr. John Wilkinson*, St. John's-street.—I believe that I employ more hands than any master fustian-cutter in Warrington. I have about 100 frames worked immediately under my own control, and I give out as much work again to be done in smaller shops, over which I have no control, as I have in my own.

I have tried in many ways to get my own shops managed more on the principle of the factory, and am gradually succeeding; mine is the only one, which has all the premises shut off and included within gates of its own; the building consists of 3 floors, with a door opening into each of the 3 shops from the common staircase; the children are all by themselves on the highest floor. I have 3 girls and 4 boys under 13, 20 girls and only 1 boy between 13 and 18; 12 of them are bound apprentices for 4 or 5 years, that is the usual time in the trade now; the rest of the younger ones are not bound, but work for half earnings, on the same principle as the apprentices; none are ever bound to me much under 13. I keep them to tolerably regular hours from 6 a.m. to 8 p.m.; we used to be irregular like the rest once, but years ago I began by insisting on closing at 9 p.m.; there was a great objection made both on the part of the hands and of the other masters, but that was overcome, though at first there was a difficulty in getting hands; now I have brought it to 8 p.m., and my hands are quite satisfied, next year I shall try 7 p.m. and stop there.

One means I have of keeping them more regular is making them share the expense of coal for warming the shops; the regular ones don't like having to pay for the extra coal consumed for the irregular ones, out of hours, so that they keep one another in order; still the habit of doing nothing on the Monday and Tuesday is so strong in the trade, that I can never get them to work so long on those days; not more than half of them come on a Monday, so I always close at half-past 4 p.m. on that day, and on Tuesday I let them go at 7.

There are many places here where children will be working on Thursday and Friday till 2 and 3 a.m., in order to be ready for the 7 a.m. train into Manchester.

There is no need for this, except that of getting their money back by the afternoon train for the work sent in; the hands might all be regular if they chose; as it is, they prefer to waste the early days of the week and fetch it up towards the end; if night work were to be restrained, they would be obliged to work on Mondays and Tuesdays. Next Tuesday there is a "Circus" coming here, you won't find half the cutters at work, they will be running round the town after that.

A good deal of the irregularity is all owing to the masters' bad habits and negligence; some will go fuddling on with drink from week to week scarcely looking into their shops at all; there is a great deal of intemperance among us. I know of one or two children, nearer a dozen indeed, now working for me, whose mothers are waiting for their money to take off to the alehouse at once.

Many of them might have done as well as I have, if they had chosen to be steady. I had nothing to start with, and was bound at 11 years of age for 5 years to my father, 25 years ago; then I left cutting for some time; 10 years ago I was working in a foundry as a labouring man, then I came back to cutting, and have worked my own way up.

The numbers in this town have fallen in the last 6 months, there were about 1,200 cutters, now there

Fustian Cutters.
Warrington.
Mr. H. W. Lord.

will not be over 900. There is nothing to be made at it now worth a man's earning, if anything else can be got; but even when wages were higher, they never thought of putting by, and as soon as any slackness in trade or low prices come along, they haven't ever the price of a 4 lb. loaf in the house.

A length an hour is a very fair pace for work; the young ones seldom do more than three-quarters of a length in that time; at the warehouse, for which we work, they deduct a halfpenny for every hole we make in cutting, and the children generally have to bear half of that loss; I don't profess to deduct anything from their wage, unless there are more than 8 holes in the piece, and in fact I don't ever even then, but sometimes they will spoil a piece wilfully; I had one such case of a girl of 14, who wanted to leave me for another shop; then, of course, I deducted to punish her; she was an apprentice. My indentures always have a clause by which I covenant to pay 2*s.* a week to the apprentice in any event, whether there be work or not; so that there is not the objection to mine, which has been fatal to many, the want of mutuality. You shall have a blank form.

Many of the shops are very dirty, I know some that have not been white-washed for more than 20 years.

There is no fixed meal-time, though they generally take them about the same time, one hour for dinner, and half an hour for breakfast and for tea. If I were to start a bell for dinner, I should have all the town about me.

Fustian cutting is a very "nice" trade; gas won't do to cut by; the light has to be shifted from time to time, and must fall so as to make a particular shade, so skylights won't do; you never saw a cutting shop with any but side-wall windows, and frames parallel to the side-walls, even if the sun breaks out suddenly, you may see them put a piece of paper to make the shade under the window.

Machines will never do the work, thousands of pounds have been lost in patents for them; I have seen most of them; the best could only do those coarse cords, where the races stand nearly $\frac{1}{8}$th of an inch apart; even there the knife would now and then make a hole, and then it wasn't like the little fault which the point of a cutter's knife may make, but a great rent, and there was no stopping the machine, till the hole was past mending.

The ignorance of the cutters is lamentable, and parents can't be got to see the good of education; many have come and asked me to take a child too young, and I have offered to pay the child's schooling myself for a year or more, and then to take it in my shop, but my offer has only been accepted in two cases, and only in one of them did the child stay the whole time at school and come to me afterwards.

No. 65. *Joseph Tomlinson.*—I have 12 frames at work, my cutters are all females, but one, he is a boy of 16; most of mine are under 18, 3 that I have here began at 9 or 10 years old; some can read a little, some, not at all.

Thursday morning and Saturday night are our two "taking in" times, when we send, that is, cut pieces into Manchester, so that Wednesday and Friday nights will be our latest; we have worked 19 and 20 hours often on a Friday; the youngest will often go on from 5 a.m. to 9½ p.m. on Friday, and come at 4 a.m. on the Saturday and work till 6 or 7 p.m.

No. 66. *James Higham.*—I have 12 frames in work; 2 of my cutters are under 13, and 5 between 13 and 18; none are bound to me; 3 of them began at about 10 years old to cut, they can't read. We shall work on till 12 o'clock to night, and begin again at 4 to-morrow morning; many of us have to do that; we dont want to, but the hands will be irregular; young and old are much alike in that.

No. 67. — *Siddall.*—Mine happen to be all boys, there are 4 of them, one under 13 and 3 under 18, one of them began to cut at 9 years old. I had a girl last week of 10 years old, who had been cutting in another shop for 4 months; they change about just as they like; none of them are bound to me.

Yesterday (Monday) not one came at all; they will have to do 13 or 14 hours work for the rest of the week to make up for it; some will do nothing for 3 days, and make 16 and 17 hours a day for the other 3.

None of these go to school, they can't read at all; they have never been taught. The parents try to make them out older than they really are, particularly just now, when they think that they will be turned out if they are under 13, when any legislation comes to govern our trade; but it would be a very good thing if we could be made to work regular hours and have no children's labour. There are lots of parents earning 30*s.* a week and living well, who prefer to make their children earn a few shillings by hard work at cutting instead of denying themselves a little and giving them a chance of going to school. It is little enough that any one can earn at the trade now; the price paid at the warehouse for cutting a piece of velvet will be 6*s.* 6*d.*, then you must deduct 4*d.* for the carriage to Manchester where they will go; 4*d.* for the holes made in the stuff in cutting, for there are 8 holes on an average, and those that give out the pieces to us always take off a half-penny for each hole, and you may fairly count the average wear and breakage of tools at 3*d.* a week on each piece, so that there remains 5*s.* 7*d.* to be divided between the undertaker and the cutters; if they are on half earnings there will be 2*s.* 9½*d.* for the child to take home, and that is not bad earnings for a child perhaps; but, if the work is journey work, the undertaker will deduct his 2½*d.* in the shilling, and there's something under 4*s.* 6*d.* a week for a man to support a family upon!

No. *Richard Welsby.*—I have 37 cutters in my shop, only four are males; one of them is between 10 and 11, and another nearly 16, the other two are adults; there are 5 girls under 13, and 13 between that age and 18. None are apprenticed to me, their parents could take them away from me at any time. The youngest I ever had working for me were two sisters; they began soon after they were 9 years of age, they were the children of a journey hand and neighbour of mine, and I took them to oblige him; they have had no schooling.

Very few of the children in the trade can read or write, the hours are too long; my shop is open from 14 to 15 hours a day, not often after 10 p.m.; but they work just as they like, and that is the worst of it; the young ones are as bad as the old ones nearly, they are separate from the elder ones here with one boy of 12 under an overlooker. The little shops are much worse both for long hours and bad habits of other kinds; the children are often very tired, but it's through wasting their time at the beginning of the week, that they work more at the end. I must get my work done, and never give them more than a fair week's work if they would set about it at once. Some can sharpen their own knives, not many, but none of the children can "fettle" them, reduce them to the proper thinness, that is, from the state in which they come to us from the blacksmith, indeed very few grown ones can.

No. *John Bolton.*—I have 44 frames in work; there are only 3 children here under 13, 1 boy and 2 girls, and only 1 other man, the overlooker; between 13 and 18 years old there are 15. None are bound by regular indenture; about 7 are under agreement to serve for 5 years upon the terms of half earnings.

Our hours are more or less irregular; we don't begin till about 10 on Monday, and leave off at 4; on Tuesday we work from 8½ to 7, on Wednesday till 8, on Thursday we begin at 7 a.m. and work till 8 p.m., on Friday we start at 6 a.m. and go on till 8 p.m., and on Saturday from 6 to 4; but these are not observed by all, perhaps not by most of my hands. To-night, Wednesday, some will be working till 10, and come at 4 to-morrow morning.

Having young and old together makes the young much less manageable; there are not enough men employed in Warrington, I should say, to make the

Fustian Cutte
Warrington
Mr. H. W. Lo

mixture of the sexes a matter of so much importance, still it does occur too much; bad comes of it.

They are generally ignorant, many grown women here can't read ; they are put too young to it ; parents have often deceived me by saying that their children are older than they really are. My opinion of the business is that regular hours, from 6 a.m. to 6 p.m., would be a great benefit, and as to age, no person should take any under 13.

— *Broadhurst.*—I have 14 frames, but only half are working. I give a good deal of my work out to other places ; they are often very irregular. I think my shop is one of the best. The reason why so many more girls than boys are employed here is, that there are in Warrington so many more occupations, such as file or wire making, or glass-blowing, to which boys can turn, and get more at all events than they can at fustian cutting.

As a class, they are very irregular and very ignorant, even of the employers there are 25 per cent. who cannot write. All are, I believe, inferior to what they were 20 years ago. There are so many more young children now than there were then, and they are put to it much younger, and have to work, at all events, quite as long.

I quite agree with all that Barton has said ; it is a correct statement of the general condition of this trade in Warrington.

No. 71. *Peter Bradshaw.*—I have not very many, only 16 frames, but I think I am the most regular master cutter in Warrington, and so they will all tell you. My hours are 6 to 6, and we leave off at 4 on Mondays and Saturdays. They have half an hour at half-past 8 for breakfast, and an hour for dinner at half-past 12. We commence here on Mondays just as on other days. I think it the master's fault, if they cannot have regular hours ; at all events, where, as in my shop, most are young. All are girls. Respectable parents often bring their children, and beg me to teach them. They are glad enough of regular hours, and if they are not respectable and well-disposed, I can make nothing of the children; but those that come to me generally stop.

A child can cut 9 lengths in 9 hours at times, and always in 10. There is one girl there, going 13, she will have got through her 9 lengths to-day from 6 to 1 ; she is a fast worker, and has only half a length to finish now ; she may be off at 1, and play or do what she likes. What work we have, does not require us to hurry ; we have seldom to work hard so as to finish an order by a certain day.

I divide the 9 lengths into 3 parts ; two lengths have to be cut before half-past 8 a.m.; that is breakfast time ; 3½ lengths from about a quarter past 9 to dinner time, half-past 12; 3½ lengths from half-past 1 or so, till they leave ; if they haven't done by the meal-time, they work on till they have ; but they generally can get done in time ; if they don't, they lose so much of the meal time; sometimes they eat their meals in the shop.

I don't deduct for the holes they make, though some will make 20 in a piece now the cotton is so inferior, and that is 10*d.* off my profit.

Twelve hours is long enough for anyone to work, child or not ; those long hours are very jading. Nine years ago, when I used to work on till 10 p.m., I used to have less work done than now, and there was more time spent about it.

No. 72. *William Hockenhall.*—All mine are females ; I have 20; 4 under 13, 8 between 13 and 18. My usual hours are from 7 a.m. to 8 p.m., but I can't say that we keep to them. Last Wednesday we worked from 6 a.m. to 10 p.m. and began at 5 a.m. on the next morning. We have sometimes worked till 11 p.m. from 6 a.m., and began the next day at 4 a.m.

The same amount of work that is done in the week with all these late hours might be done easily in steady work of 10 hours a day, and done far better. Now those young women downstairs, under 18 several of them are, don't come on Monday ever, and never think of doing much on Tuesday. If fault is found with them, they go off, for they have only to go across the street and get employment in another shop.

Most of my young ones are under agreement for 4 years on half earnings, and begin at about 11 years old.

We used to be in a very unhealthy place, 13 of us working in a mere cottage ; this shop of mine is newly built, and is a good one, roomy and well ventilated ; the children are by themselves ; they ought always to be.

There are many places here where the master drinks and is negligent ; there they will work the whole night before the "taking in" day, and those are generally the smallest and most unhealthy shops, and in other respects the worst managed.

— *Henshall.*—I have 24 persons cutting for me, all but 2 are females, none under 13 ; five and twenty years ago there were 1,300 cutters in Warrington, now there are not over 900. I was put to it at 14 ; they were mostly children even then, but they are put much younger to it now. No. 73.

Most of the men employed in cutting in this town belong to the family of the master ; the harm of mixing the sexes is felt much more in the country places, such as Lymm; here it is the exception for men to be cutters, they can get better wage in other trades, and women can do the work as well, indeed there is little that children cannot do as well as the adults can.

Most of mine have begun to cut at about 11 years old ; but they will do you more good in two years at 14 than in five at 9 or 10. Our hours are from 6½ a.m. to 7½ or 8 p.m., but not regularly. If the factory regulations as to age and proper hours were made to apply to us, it would be a very good job. Most of mine go to the Heathside night school and to Sunday school, but that is not the rule in the trade.

I think the trade here is gradually getting into the bigger and more regular shops, and I don't expect that the effect of regulations would be to drive it back to cottages. Those who provide the pieces to be cut, would soon find the difference between a regulated shop and an irregular cottage ; they do as it is.

Sarah Acton.—Am 12 years old ; can't read ; began cutting at 10 ; never went to school ; used to work on Wednesday, Thursday, and Friday, every week from 4 a.m. to 9 p.m. generally. No. 74.

Elizabeth Taylor.—Don't know how old I am ; have been at cutting a few months ; my birthday is generally on a Thursday, I believe, don't know on what day of the month, or what month ; can't read. No. 75.

Sarah Domville.—I began cutting when I was between 9 and 10 ; not at this shop ; used often to work 16 hours a day, from 6 a.m. to 10 p.m., it was very jading ; here we are more regular. No. 76.

James Higham.—Am 15, began cutting when I was 10 ; can read a bit ; used to have to work from 6 p.m. to 10 p.m., and often to 11 and 12, and to come the next morning at 4 or 5. No. 77.

Ann Coleman.—Am 12 ; began at 10 years old ; used to have to work two nights a week, from 5 a.m. till 10 p.m., and later ; can't read. No. 78.

Amelia Glaive.—I am 18 now and have been cutting for eight years ; before I had been two years at it I had to work all night ; that was not at the shop where I work now ; but the wage was better then ; many of us will have to work all to-night to finish our week's work, a piece that is, and get 4*s.* 6*d.* for it after all. No. 79.

Elizabeth Hatton.—I am 11 ; was 8½ when I began cutting, that was not in this shop ; I used to work, while I was a learner, from 8 to 8, afterwards I went to another shop where we worked from 6 a.m. till 10 p.m. often. Can't read. No. 80.

Report upon the LACE MANUFACTURE, principally Machine Lace Finishing and Pillow Lace Making, by Mr. J. E. WHITE.

The Lace Manufacture.

Mr. J. E. White.

To Her Majesty's Commissioners.

Gentlemen,—

Threefold division.

The entire lace manufacture falls under three general heads:—1. Making lace on machines. 2. Finishing lace so made. 3. Making lace on pillows.

Factories.

Factories.

Labour still unregulated.

It is mainly, but not entirely, to the two last of these heads that the evidence which I have the honour to lay before you relates, for, as nearly all machines are now moved by steam power, the greater part, though not the whole, of the labour employed under the first head, being performed in factories, falls within the operation of the Lace Factories Act 1861.

There is, however, a factory of some size in the Isle of Wight, and a few small factories or shops elsewhere, said to be fast disappearing, in which steam power is not used.

Winding, &c.

Some also of the operations usually performed by children or young persons in factories, as winding and threading, are such as, if wished, can be performed in separate though neighbouring premises; and it appears that upon the late Act taking effect this was done in a few cases; but at the time of this inquiry, viz., three or four months afterwards, there had been too little occasion for wishing to exceed the factory hours to afford any indication whether such a practice was likely to become more general.

Rough-mending.

There is also a part of the labour sometimes performed in the factories, at other times in houses, subsequent to the making on the machine, and therefore not within the Act; and yet required before the lace is fit for the maker to deliver to the manufacturer or to the warehouse, and therefore not commonly included in the term "finishing." This is the "mending in the brown," or "rough-mending," which is necessary in order to repair any imperfections arising from entanglement or breakage of the threads in the making. This is a work requiring great skill and very close attention. It is performed by females, some quite young.

There are also certain processes referred to in the evidence connected with the preparation of designs and their adaptation to the machine, which may or may not be carried on in a factory or a warehouse, or elsewhere as a distinct work.

Machine Lace Finishing.

Machine lace finishing.

The labour falling under the second head "finishing," is carried on in the factory district, principally Nottingham, by females, many of them young children, in large buildings called "dressing rooms" or "getting up rooms," in warehouses, and in houses either private or so called; and in some cases work is sent by the warehouses to females in country places, at a distance of a great many miles.

Numbers employed.

It is, however, impossible to arrive at the total number of persons so employed, even with approximate accuracy, though, undoubtedly, it is several times greater than the number of persons employed in the making, which, from the data given in the Report on the Lace Factories, would appear in the whole of England to be under 10,000 of all ages and both sexes. The total number of persons engaged in the whole lace trade in 1860 is estimated by Mr. Felkin at about 150,000. It is also calculated by the writer of a paper on "The Lace Trade and the Factory Acts" (Hardwicke's, reprinted from the "New Quarterly Review") with whom I have communicated, and whose information was, as he informs me, collected by himself personally with great labour and care from manufacturers, warehousemen, and other sources, that between 8,000 and 10,000 children and young women are employed in the lace warehouses alone. The number of persons described as lace manufacturers in Nottingham alone is between 200 and 300, of whom the greater part have warehouses. Of the latter I have visited all the largest, and most of those, as I am told, of the highest standing, and some of the smaller. The largest employs over 450 persons, of whom nearly five-sixths are females, and somewhat less than one-third are children and young persons. The remainder employ each from 300 downwards to perhaps half a dozen, though only few probably have over 200, and by far the greater part considerably under 100. The numbers, however, vary much with the season and state of trade, and these numbers are taken in a slack time. Generally speaking, the children under 9 or 10 years of age are not taken into warehouses, but work in private houses under "second-hand mistresses," where the usual age for beginning is about 8, though in many cases girls begin younger, in some even as young as 5, the work itself being very light.

Irregularity of work.

At the same time, from the system on which the business is carried on, the pressure of work is more variable in finishing than in making the lace. It follows that there are a larger number in greater need of protection, though the difficulties in securing it seem also greater. A short account of the nature of the work itself, and of the places in which it is usually done will show this.

The owners of lace warehouses are all called manufacturers, whether they make also, or finish, or do little else but buy and sell. These, for reasons affecting their own interest, either do not buy lace, or keep it in stock unfinished, until it is wanted for actual sale, and, as this happens only in certain short seasons of the year, or on the receipt of actual orders from customers, the work must be done very quickly, and, owing to the demand depending on fashion, and falling on all manufacturers alike pretty much together, at times when the number of available spare hands is least. The number of hands also required, being in itself very large, is of course less easily capable of proportionate increase than a number absolutely smaller. Hence, if the work is to be done in the very short time usually allowed, and, if it is not, the demand may have ceased or the order be cancelled, the labour is gained by lengthening the hours to an extent said to be much less now than formerly, and thought by employers not to be commonly unreasonable, but which appears plainly injurious to the young. The

Hours of Work.

ordinary hours are from 8 a.m. to 8 p.m., but these are frequently exceeded. In the cases of S. A. Marshall, aged 17 (page 192), E. Cresswell, aged 13 (page 199), E. Blagden, aged 9 (page 226),

A. Meek, aged 7 (page 229), respectively, the hours are sometimes from 6 a.m. to 9 p.m., from 7 a.m. to 11 p.m., from 8 a.m., to 9 p.m., from 7 a.m. to 8 p.m. The Lace Manufacture.

The processes vary with each kind of lace and with the practice of different manufacturers, and any general account of them will be necessarily imperfect, and if applied to all cases, even of apparently the same class of goods, incorrect. But they may be pointed out sufficiently for the purpose as follows:— Mr. J. E. White.

When a manufacturer thinks that the time has come for finishing a piece of lace he sends it, if cotton, to be bleached or dyed, according as he may need it white, black, or coloured; if silk, to undergo a process of boiling out the gum, and, if necessary, of dyeing. Both cotton and silk (though not in every case) must then be "dressed," *i.e.*, stiffened by a liquid mixture, chiefly starch, spread and dried on it in the dressing rooms. Dressing.

This usually forms a distinct business. The buildings in which it is done, particularly those lately built, are very large so as to allow of spreading out the lace at full length to dry on frames many feet wide, which can be adapted to suit wider or narrower lace. Many rooms are over 240 feet in length, or still larger; one set on three floors, nearly 350 feet long each; and another single room covers nearly an acre and a half of ground. As much use is made of the objection to interference with private houses in which much lace work is really done, I may mention here that on my visiting one of these places more than 250 feet long, and employing many persons, the owner at first objected to any inquiry on the ground that he had "nothing but a private house, "*i.e.*, no machinery." There are about 30 sets of dressing rooms in Nottingham, not including the separate rooms sometimes kept by manufacturers themselves in their own premises. Of this number I have visited most of the principal establishments and two or three of the smaller. Lace is sent from other parts of England to be dressed at these rooms and finished in Nottingham, but the lace made in the large factory at Tiverton and in that in the Isle of Wight is dressed and finished on the spot. Dressing rooms very large.

If the lace is dipped in the mixture or "dress," the superfluous dress is pressed out by passing the material between rollers, a purpose for which steam power is sometimes used, but which may be done almost as well by hand, and would in all cases, I am told, be so done if the use of steam power were treated by the Factory Inspector as bringing the place under the Bleach Works Act of 1860. Notices of this Act and of its application to dressing rooms were sent to them, but in no case are the rooms treated, as I am informed by the district factory surgeon, and at the rooms which I have visited, as being under that Act. Processes. Query? Under Bleach Works Act?

The lace is then carried to a large room and stretched on the frame, fastened at the sides on "pins" or hooks; this is called "straightening." If the lace is not dipped but put on the frame dry, the dress is applied at the edges, and spread over the broad surface with brushes, called "wetting," and smoothed out with light rollers called "rolling." The substance of the lace is much increased by dressing. I have seen a kind the weight of which was trebled by it. Sometimes small clots of the "dress" have to be beaten out by a long cane. As the lace dries it shrinks if silk, or stretches if cotton, and the sides of the frames are moved closer together or wider apart, as the case may be, and for this purpose need watching. This is easy work, and may be done by a child. It is an advantage to have several frames on which the hands can be employed successively while the lace is drying on the first, and there are generally two or more side by side in each room, and rooms on different floors.

The time which a piece takes to dry depends upon the nature of the material and the amount of dressing applied, as well as on the heat and dryness of the air, which may be affected by the weather, and a longer piece also takes more time to spread than a shorter. Still it may be said generally that the time ranges from a few minutes to, in the case of a particular kind of very thick cotton, an hour and a half. Variation in length of process.

The loss which would arise from any enforced regularity of hours on account of the impossibility of stopping the process when once begun is urged by dressers as a difficulty peculiar to their work.

Steam power is in some cases used to move fans to help the drying; in some cases fans are waved by hand.

The greater part of dressing-room work is done by females, many quite young, and some of them children, though there is a general belief that it is unsuitable for the latter. It appears that many of the younger hands were discharged on notice of the Bleach Works Act being given.

The nature of the work requires a heated temperature, usually of from 80° to 100°, sometimes lower, and also, as I have been told, though I have not myself had an opportunity of observing, higher, than these extremes. The heat from the moisture of evaporation is sometimes of a very oppressive kind. Heat.

The people much employed in these rooms have almost invariably a pale and bloodless face and skin; are many of them in constant perspiration, or, in the language of one girl, "sweat awful;" become languid and enervated, fainting being very usual; suffer much from exposure to cold air when not at work, especially on leaving, consumption from this cause being said to be common amongst them; and undue stimulus is given to other functions in females, leading to injurious consequences, moral as well as physical. In one dressing room a little girl, apparently not 14, was pointed out to me who had been brought back from cohabiting with a man, and on her return had expressed a wish to be "a bad girl altogether." The effects on the health are perhaps heightened by the general preference, not unnatural in great heat, to take tea and "slops" rather than solid food. On the other hand, the space is large in proportion to the number employed, and the admission of fresh air is necessary in many parts of the work, and there is frequent change of employment with intervals of rest, and considerable bodily exercise. There is a general want however in these rooms of the means of turning these intervals to more advantage. In many rooms there is no space even for sitting down, and the legs have no rest and sometimes swell, and where there is, it is generally still in the same heated temperature; and I have found meals being taken in the dressing room Unhealthy.

The Lace Manufacture.

Mr. J. E. White.

itself. Still the employment is considered by some more healthy than that in warehouses. The floors of the dressing rooms become very dirty from the constant dropping of the starch dressing, and seem rarely to be washed, the dirt being usually scraped off.

Warehouse work.

Returned to the warehouse the lace undergoes several processes performed by the hand, chiefly with the needle or scissors, as described in the inquiry of the former Children's Employment Commission, *e.g.*, such as separating the breadths, generally by drawing out a thread; a further and more careful and finer mending; joining lengths together where flaws have been cut out, &c.; still further elaborating the patterns; pearling; "grafting," or joining-on borders; carding, or jennying, different modes of folding pieces up; and finally setting off the lace to advantage by putting on facings of coloured paper, &c., called specially "finishing;" most, though not all of them, sedentary employments.

But of late years, owing to improvements in machinery, especially by the application of the jacquard, the patterns formerly produced by embroidery with the needle are now made by the machine itself, and the superfluous threads afterwards removed by scissors, so as to produce a closer imitation of handwork; processes, when applied to the surface of the lace, called "clipping," when at the edge, "scolloping." The lace is either held in the hand or stretched upon a frame, and is then spoken of as "frame-clipped." These processes now form a principal branch of lace finishing, and give employment to a very large number of young females.

Mistresses' houses.

Many of these operations, though carried on in warehouses to a much greater extent than formerly, particularly in the large new warehouses built in large numbers within about the last ten years, may be almost equally well, and often are, carried on in private houses, either by women singly or with their own children, or more commonly by "second-hand mistresses" who employ women and girls for the purpose. In a busy time lace work is probably done in the greater number of the houses of the poorer classes by women alone, or by children of their own or of other people; but as work becomes scarce less and less work is given out to them, and by November many of the houses where children are usually kept for the purpose are, in a bad year such as this (1862), quite thrown out of work. I visited a large number of mistresses' houses till there seemed but little probability of finding anyone at work. The large number of places at which this occurred will give some idea of the variable and scattered nature of the work. Specimens of houses employing very few girls or even one alone are also given.

Warehouses, hot and close.

The new warehouses are large and handsome buildings with spacious rooms, but from the number of persons working for long hours together, the large amount of gas-light required for the work, the common mode of heating by steam pipes, not always carefully regulated, and the want of proper ventilation, that which is provided being such as to be disliked and even stopped by the workpeople, or from some other less apparent causes, the air becomes impure and oppressive, and is much complained of by the workpeople, and serious injury to health appears traceable to these causes, especially when the work is long continued and late.

Mistresses' houses, the same.

In private houses, which, where many persons are employed, are nearly always those of poor women, the work rooms are small and close, also strongly lighted by gas placed very low, the room being sometimes one in use also as a bed room. There are no means of ventilation but by the windows, which often cannot be opened for fear of the damp spoiling the lace, or of the draught. The space allowed for each person in some places is very small, the practice being to put as many into a room as will just leave room for the children on their little low stools, and for the lace on the ground or on the clipping frames, but not for any furniture, or for anyone to move about. I have noticed one where the space was 67 cubic feet for each person, another about 90, another 92, another about 100, and there are others where the allowance is not much greater.

I am informed by an official person in the War Office that the space now required in barracks for each soldier is from 500 to 600 cubic feet, according to situation, and 1,200 cubic feet in hospital.

In some cases, in order to keep the lace clean, the children are obliged to sit without their shoes, the floors being often of plaster or brick.

Bonnet front making.

Within the last few years a large branch of lace work has sprung up, of a kind entirely new since the time of the former inquiry already referred to. It appears to be of a peculiary unhealthy kind, and carried on principally by young girls; it is "bonnet front-making."

Heat.

For this purpose lace quillings are pressed into a sort of frill shape or plaits by being passed over rollers in what is called a "gauffring machine," a small stove highly heated by gas, over or close to which the girls work, no escape being provided for the gas. On placing my thermometer on the knee of a young girl engaged in this work in the light of the gas, which fell on the whole of her body from the waist downwards, it rose to 148°, and at the opening where the hand is placed to draw out the lace nearly to 150°, the highest that the thermometer would allow. The room itself, though much cooler and fresher than when I had been in it before and than most gauffring rooms, and having the window open, which is not common, was 70°. Other machines or presses also heated by gas or steam pipes, in the proportion often of about three to a common (*i.e.*, single) gauffring machine, are used for "making up" these frills into bonnet fronts, and the latter machines are stated to be more injurious than the former, though the smell and heat are less striking. This employment is believed by all, and admitted by manufacturers, to be very unhealthy.

Large amount of gas used.

At one of these manufactories I obtained an account of the quantity of gas consumed in a summer quarter of the year by two small gauffring machines and six making-up machines, all in one small room of less than 4,500 cubic feet, seldom all in use at once, but occasionally working overtime so as to do nearly the same quantity of work as if all had been employed evenly for the regular day of 11 hours; the amount was 58,000 cubic feet, or for each of the 78 working days 743½ cubic feet. The consumption in winter is increased about 20 per cent. for lighting this room, making $743\frac{1}{2} + 148\frac{1}{2} = 892$ cubic feet, and this would fall somewhat more on the darkest and shortest days. But without going into this, the quantity of gas let loose into this room without any means of escape beyond two small holes knocked in the ceiling, which over the gauffring machines is not more than

8 feet high, equals in a winter day nearly a fifth, in a summer day nearly a sixth, of the whole space of the room, and in this room at least 17 persons are employed. I have, however, felt bonnet-front rooms much more oppressive than this with gas, and of a higher temperature. At this work complaints of sick headache are very common, and at one place several cases of fainting are stated. The Lace Manufacture. Mr. J. E. White

The above do not exhaust but they may be taken as fairly representing the character of employment in which lace finishers are engaged.

An objection strongly urged by manufacturers against any legislation affecting their business is, that any restrictions upon themselves would discourage the employment of the young under more favourable conditions in warehouses, and increase the pressure in the private houses where protection is more needed, and where at the same time it will, as they conceive, be impossible to secure it.

Pillow Lace Making.

The labour falling under the third head, pillow lace making, is carried on principally in two rural districts of England;—one the Honiton lace district, running along the eastern portion of the south coast of Devonshire for 20 or 30 miles and a few miles inland, and including a few places in North Devon; the other extending over a greater part of the counties of Buckingham, Bedford, and Northampton, and the adjoining parts of Oxfordshire and Huntingdonshire. Pillow lace making. Districts.

In certain places a manufacture called by a different name, but the same in the nature and system of the employment, is carried on. This is "braidwork," a way of arranging and joining together braid so as to produce an imitation of lace, part of the work being done on the pillow in the same way as lace.

Pillow lace is made also, as I am informed, in part of Ireland, as in the neighbourhood of Limerick, Dublin, and Cork, but not to such an extent as to make me think it desirable to visit those places. Ireland.

Pillow lace is little made in the towns but chiefly in the village cottages, though not entirely in the homes of the lace makers themselves. Domestic.

In some parts the pillow lace employment has much declined, and as it seems permanently, probably from the improvement of machine-made lace; in all it is depressed from the state of fashion and temporary causes. Still the number of persons employed, and the amount paid for labour, are very large. One manufacturer alone employs 3,000 persons, and others are spoken of as in the same rank of business. Important.

The work requiring great manual dexterity and experience, but very little muscular strength or size, children are put to learn it at a very early age, six being thought the best by some teachers, though many begin at five and even younger. Early age of beginning.

For this purpose they usually go to work at a school kept by a woman in her cottage. These rooms are generally the living rooms of small cottages, with the fireplace stopped up to prevent draught, and sometimes even in winter, the animal heat of the inmates being thought sufficient; in other cases they are small pantry-like rooms without any fireplace; and in none of these rooms is there any ventilation beyond the door and window, the latter not always made to open, or if it will open not opened. Lace schools.

The crowding in these rooms and the foulness of air produced by it are sometimes extreme. I have noticed in one place as small an amount of space as under 25 cubic feet for each person. The inmates are also often exposed to the injurious effects of imperfect drains, sinks, smells, &c., common at the outsides or the narrow approaches of small cottages. Crowded rooms.

In general the children pay a small weekly sum to their mistress, and are entitled to the lace which they make, though it is sometimes disposed of for them by the mistress. In some districts they go at first as apprentices, making no payment but giving their labour instead. In either case, owing to the tiresomeness of teaching young children, a work requiring so much attention, and the wish to have the room free of them, and the small value of their work, they are rarely kept very late, *i.e.* not beyond 10 p.m. and in most places not beyond 8 p.m., the mistress generally having no pecuniary interest in their work. Still they suffer considerably in health from the closeness of the confinement and bad air. System.

They are also deprived of the opportunities of education. It is considered, however, in many places to be the duty of the mistress to teach reading as well as lace making, and though but a few minutes in a day are devoted to this, when it is practised its good affects appear traceable in a power of reading which their other instruction would have been insufficient to give. Conversely, in parish and other schools children are sometimes taught lace making as the only means of inducing them to attend at all, and the children afterwards sell their lace. In the event of places of manufacture being ever placed under any regulation, the case here spoken of might require some special provision. Education. Mixed schools

After children leave their lace schools, generally between the ages of 12 and 15, they commonly work at home, or congregate in neighbours' houses for the sake of company and mutual help, and to save light. Under these circumstances they work what hours they please, often very late, and sometimes all night through. Home work.

The employment is often made more injurious to the eyesight by the scantiness of the light in which they work, or by its being transmitted through bottles of water. The younger the lace-makers are, the more of them work with the same supply of light, 8 or even 12 sometimes working round one dip candle. Effect on eyesight.

Truck payment, either entire or partial, is the rule, though I am told not the universal rule, of the pillow lace manufacturer. The small manufacturers or buyers have shops of grocery and drapery, &c., which must be taken in payment; most of the larger insist on supplying their own thread, silk, patterns, &c., and deduct the value, sometimes amounting to a third or more of the entire cost, from the price paid. Trucking general.

Great complaint is made of this, not only by lace-makers, but by residents of all kinds in the lace-districts. In some cases, if money is paid, a heavy discount is charged for the favour.

Lace when made on the pillow is complete, and does not require finishing like the machine made lace. The cleaning which is sometimes needed is not of sufficient importance to constitute a separate employment.

Machine and Pillow Lace.

There are, however, certain processes which both pillow and machine-made lace sometimes pass through to fit them for ultimate sale to the consumer, and which may be included in the term "making "up." This sometimes approaches very nearly to millinery. Making up.

Honiton lace is usually made in separate pieces, or "sprigs," some as small as a swan-shot, and these are afterwards joined together, either on the pillow by other lace-work, or with the needle, either by sewing together or by mounting on net.

The Lace Manufacture.

Mr. J. E. White.

Question of limitation of hours in the preceding branches of employment.

Some articles require further making-up by joining in different ways or to other substances, and are given out from warehouses in Nottingham, London, and elsewhere to females for the purpose.

Making-up of all kinds is an employment for which young girls are generally said to be unsuitable, and it is comparatively limited in extent.

With regard to the hours of work which now prevail, or are likely to prevail hereafter, the following points seem to require attention.

(1.) The generally low state of trade at the time of this inquiry and for some time previously.

(2.) The nature of the material produced, as in an exceptional degree an article of luxury, and dependent upon season and fashion, and therefore subject to great fluctuations of demand,—fluctuations however which, according to the statements of some manufacturers, good management and improved public opinion have already in some cases rendered compatible with moderate hours of work without a diminution of profit; but which, so far as, according to the opinion of others, such a result is not or cannot be obtained by the voluntary and unaided efforts of the employers themselves, at times press severely upon the young.

(3.) The apparent tendency of the increased facilities of production and communication to increase the uncertainty and changeableness of fashion.

(4.) The fact that manufacturers do not seem aware of the actual hours for which work is carried on, sometimes without their knowledge even on their own premises, by the wishes or through the negligence of their subordinates; though, if such work were illegal, care would no doubt be taken by the employer to prevent it. Cases of persons suffering severely from late warehouse-work, which have come before me, have occurred in the employment of principals, who have stated to me their conviction that long work-hours are not for the interest of the employer, and do not in fact occur, or only so exceptionally as to be harmless.

(5.) The supposed probable effect of any legislation which would not reach to all places, however small, where hired labour is employed.

French competition.

As it is sometimes said that, in the event of any limitation of the hours of labour, French competition and the comparative cheapness of French labour will enable the consumer to supply his wants without being forced to adapt himself to the powers of the English producer, I have been at some pains to obtain evidence as to the price paid for female lace-finishing labour in France, but I have failed to obtain any satisfactory information. The little evidence given is conflicting, and conflicts again with what I am told by a manufacturer engaged in the lace business in both countries, but who wishes not to make a statement in person. He states that from his experience it may be taken that the cost of labour in England employed in finishing fancy lace is from 12 to 15, probably about 14, per cent. more than in France. On the same authority it is stated that the number of persons employed in finishing fancy lace of the average amount of ornament is about five times that of the persons employed in making it.

Moral condition.

Complaint of the great amount of immorality prevailing in Nottingham, and resulting in great measure from the nature of the employment there, in particular from young females being kept late in their places of work, and of the unfitness of the young women to undertake the charge of a household and children, have been made to me by persons who do not wish to bring such a charge against their neighbours in their own statements, but who are impressed with the serious importance of the subject, and wish that public attention should be called to it with the view of checking the evil, if possible. Some of the evidence connects this with the want of early education, and certain facts and figures seem to show that there is some ground for the complaint. The same disregard of the common duties of mothers as existed 20 years ago is found still, and is shown by the still undiminished use of opiates and the general neglect, which bear their fruit in the rate of infant mortality. Extracts from tables which are appended show that in some of the poorer districts of the town, of the total number of deaths, in some cases more than a third have been those of infants under the age of one year. It should be borne in mind, too, that since the date of the former Children's Employment Inquiry great improvements have been made in opening out closed yards, providing drainage, and making other proper arrangements, and also building new houses under strict sanitary conditions beyond the old confined limits of the town under the powers of an Act of Parliament obtained for the purpose. Other tables show the high rate of consumption at certain ages, which coincide with the ages of the large mass of females employed in warehouses; and the experience of medical men is that the cases of consumption in the lace finishing neighbourhood are found chiefly amongst females.

Health.

General effects.

The general appearance of all regularly employed in lace work, not merely in dressing rooms or at bonnet-front making, but also in the common warehouse and private house work, is unhealthy. There is a general want of colour and also of animation; as described by one person, "they look that "white." The worn and early-aged faces, and frequently the failing sight of those who have left warehouses and depend on taking work at their own homes or employing children, show unmistakeable marks of the labour that they have gone through, and the anxiety which they still suffer from the alternations of high pressure and absolute want of work. Even the children work with a closeness of attention and a quickness which is astonishing, scarcely ever allowing their fingers to rest or even move less quickly, or taking their eyes off from their work when questioned, for fear of losing a moment. Even the youngest often beg to work over-hours, as that gives them the only money which, as a rule, they ever get for themselves. One little girl of 9 works so hard as even to frighten her mistress for her health, and "till she has to stop to rest her little head." Yet a hope has reached many even of these little ones, as I am informed, and as their smiles when met by me in streets or schools would seem to show, that their work hours may one day be shortened.

I have the honour to be Gentlemen,
Your obedient servant,
J. Edward White.

EVIDENCE COLLECTED BY MR. J. E. WHITE UPON THE LACE MANUFACTURE.

MESSRS. W. AND F. DOBSON'S, LACE DRESSERS, GREAT FREEMAN STREET AND FINKHILL STREET, NOTTINGHAM.

Lace Finishing. Nottingham. Mr. E. J. White.

The room at the former place is about 250 feet long, and newly built. The rooms at the latter, at which there was no work at the time of my visit, are older and much smaller, the walls of the staircase &c. grimed with dirt from long want of cleaning. From my own observation it clearly is not the case that dressing rooms, whether walls, ceilings, or floors, are cleaned as often as they need it, as stated by some persons. Many are quite new, and show the need less.

Mr. Frederick Dobson.—We use the room here for silk, chiefly plain quillings, and those in Finkhill Street for cotton. We have tried night work, and find it does not answer in a business point of view. It is not well done. We should be very glad if all were required to work only between 6 and 6. It would give sufficient time for the work wanted, and leave leisure for rest, recreation, and fresh air; the latter is very important on account of health for those who work in dressing rooms. For the silk a heat of about 80° is sufficient; for the thick cottons, about 90° or 95°. In the silk room there are two frames, one on each side. While the girls are at work on one side the windows on the other are always open. The fresh air dries the work. One of our pieces takes on the average about 20 minutes, and can be done in a quarter of an hour. A slight margin for the time of leaving off is necessary, as the work when begun must be finished or spoiled. In my opinion the employment is healthy, which I attribute to the admission of so much fresh air and free perspiration. We should not give up girls under 18 on account of their labour being limited to the extent mentioned.

Sarah Ann Ford, age 17.—Hours are 8 to 8, never later, but begin in summer for a month or two at 6. Always an hour for dinner and half an hour for tea, as near 1 and 5 as the work suits. Goes home for both, as most of them do. Those who stay take meals in the tea room. There is no washing place or towels, but they go into the dipping room and wash the black off with vitriol and water. Has 7*s.* as a "wetter;" a "roller" gets from 7*s.* 6*d.* to 9*s.* Went to a dressing room (Webster's) at 13, and has been at two others since, and then came here. At Webster's worked from 8 a.m. till 6 p.m. or so; when busy, generally from 6 till 7; once or twice from 6 till 9. It made her uncomfortable at first, and she was very ill; was faint, sick, and had headaches, but most at Webster's. Is so still sometimes. The others were bad and sometimes fainted and fell down, but not often. It would happen sometimes once a week, sometimes once a fortnight. That was the usual thing when she was there, about 2 years. When they fainted they were carried out into the office, and came back next day or in a couple of days perhaps. There were about 36 women and girls, two younger than herself. They had very few breaks in their work, and she never sat down. She used to feel very tired at night. They used to have the windows open on one or both sides. It was hottest when doing the thickest cottons. The moisture would stand on her face but not wet her body much. It did with some of the others. They used to say that they had to go home and strip themselves to dry their things. Often catches bad colds by coming out of the room with nothing on. Brings a cloak in summer, but sometimes leaves it, at dinner time perhaps, and then catches cold. They are only "bits of colds," and do not pain her chest. Has not heard of the girls having rheumatism here. At one of her other places (Cleaver's) two girls fainted, but she has seen none do so here, and has not heard them speak of it much. Was a strong girl when at service before she went to work, and never bad or faint. Went to Sunday school and chapel for two years, but has left a year. Went to night school at Webster's, but never to a week day school. Cannot read at all. Could better once. Remembers the letters. (Cannot spell "girl.") Never wrote. Miss Webster was teaching her sums when she left. Goes to chapel Sunday nights. (Mentions some Scripture events.) Is quite sure she is right in saying that at Webster's a girl fainted about once a week or a fortnight.

[This girl has no colour at all in her cheeks.]

MESSRS. F. F. AND A. CLEAVER AND CO.'S, LACE DRESSERS, WILFORD ROAD, NOTTINGHAM.

These rooms occupy two floors of 258 feet in length, in a large new building over another dressing room (Carter's, mentioned below). The temperature was, at the time of my visit, in one room 79°, in the other 83°, and was stated to be usually low; but, if so, the effects as stated in the evidence are the more deserving attention. Fainting and faintness are common as well as colds. Two of the children coughed very frequently. Several of the girls employed are unusually young for such work, and the meals are taken by many in the dressing rooms themselves. I saw some of the children beginning their dinner in one of the dressing rooms before I left it.

Of 7 of the youngest girls, the eldest is 13 years old, the two youngest 11, and the remainder 12. All go to Sunday school, two to night school, a third having left because her mother was ill and could not spare her, and all but one have been to day schools for the following periods:—one from 6 years of age to 8, one from 6 to 9, one from 6 to 10, one from 5 to 10, one from 5 to 11, one from 4 to 6. One named by all as the best reader could read fairly, one named as the worst could spell "it is, &c.," and all said they could do as much. One could write in a copy book, two on a slate. These children carry the dressing in buckets, and set the frames, *i.e.* push them in or out, &c.

Mr. Alfred Cleaver.—The business of the firm is general. A limitation of the work of the younger hands, *i.e.* under 18, would make no difference if the same for all in the trade. Cannot tell what they would do if the children had to go to school part of the day. Might sometimes find a difficulty in getting enough for two sets. If the hours were limited at night would begin at 6 and find no difficulty in it. Likes closing early best, and very rarely works more than 12 hours.

Cannot at all say how long a piece usually takes to dress; sometimes not more than three minutes, sometimes an hour, sometimes longer. The weather does not make much difference. They always stop pretty near 1 o'clock for dinner, seldom more than 10 or 15 minutes one side of it or the other. If work were wanted it must be done, whether they were bound to leave off or not, or the order would be lost. Thinks that the work is healthy, because they have a sick fund from which any one can draw after three days' absence

Lace Finishing. Nottingham. Mr. J. E. White.

from illness, but that seldom happens; perhaps once in three months. Medical men have told them that it is much more healthy than a warehouse, where so many are stewed up together so.

Catherine Thorpe, age 13.—Sets frames by pushing them in or out on slides. The hours are from 8 till 7, or, if they are busy, from 6 or 7 a.m. to 8 p.m. An hour and 10 minutes for dinner about 1; half an hour for tea about 5. They have these meals in the work room here, only one or two of them ever going home for them. Sometimes the women sit out on the steps (of the stone staircase). Some of them are badly at times. Her sister, aged 24, is so, and has been at home for a week now. Another, Bella Walker, often faints. "A many of them do." Witness has had a bad cold. Children's wages are 3*s.* and 3*s.* 6*d.* a week.

[Is very pale and thin; looks ill fed.]

Sarah Thorpe, age 12.—Fell down and went into fits here. Often has to go home badly. Often has bad cold and cough. Does not know how she gets it, but sometimes "we go out of the room without our things on."

Helen Hayward, age 11.—Here a year. Has fainted two or three times.

Alice Wilson, age 13.—Fainted on the steps while going from one room to the other. Many times feels faint without really fainting. Gets a drink of water from the tap then and goes out on the steps. Many of them do the same when they feel very badly. Often has colds.

Edith Gricombe, age 12.—Has had a bad cold and cough for a week or two. Often has it.

Harriet Wright, age 12.—Finds it very hot. It is very cold now (83°). Feels sickly at times. Emma Brown, aged 12, who is gone to dinner, has very bad fits here "like as if she was dead."

Bella Walker, age 18.—Worked at clipping and scolloping in Mr. Cleaver's warehouse till here. Has middling health.

[This witness who looked much better than many in dressing rooms, though of too delicate a colour, when asked if she did not faint (see statement of Catherine Thorpe) was unwilling to answer, and was caught up by a woman near (next witness) as follows.]

Mrs. Pilkin.—"She (Bella Walker) often faints." Has been very bad all this week and fainted two or three times. Is sometimes well for a week or so. They have to go outside when they are faint, and when they come in "the nasty feel comes on again." Witness has often felt very ill herself, but used to be worse than she is now. "It's a nasty low feel and "fainty." Thinks it is the heat. Has been in two dressing rooms before. Dobson's (Finkhill Street), and Harrison's (Great Freeman Street.) Dobson's is the unhealthiest place in the town, because it is so low and the heat so close to you. But most of them had pretty middling health there. The thick cottons are "steamy hot." That is not so healthful as dry hot.

[On referring these general complaints of fainting afterwards to Mr. Cleaver, he thought at first that it could not be so common, but that as regards one of the little ones it might be from cunning, though I could not learn how, and that in the other cases it must be from their not having enough solid food, and that the witness Bella Walker in particular maintained a great part of her family and probably was in want of food.]

MESSRS. COOPER AND WAIN'S, LACE DRESSERS, ISLAND STREET, NOTTINGHAM.

These rooms, one on each floor with two parallel frames in each, are very small, being only 120 feet long, narrow and very low. The space is of course ample for the small number of people employed, but it is said by owners of small rooms, and as it seems with reason, that owing to the short length and small number of their frames they can be all fully worked by a small number of hands as fast as the lace will dry, so that little or no time would be saved by employing more hands. Consequently that in case of a press of work they would be unable by any means except by taking larger premises or employing only adults, to make up for any loss which might arise from any limitation of the hours of those who were not adults, and that the benefit would go to those who have the larger rooms, and who, if their present number of hands were not sufficient, could employ more with effect, so as to do any amount of work that might be thrown upon them. An effect of rooms being low is that where, as in the present case, heating pipes are carried along the ceiling as well as near the ground great heat is given out close to the heads of the workpeople, which is sometimes complained of. The work done at these rooms is all "Paris" dressing (a kind requiring more heat than others), and the usual heat was said to be 85° or 90°, but the thermometer was broken. My own stood in each room at 100°. As far as I have observed, the estimate of the dressers themselves as to the heat employed is not very accurate, and the temperature seems to be regulated empirically, so to say, rather than by any scientific observation. At one place observations have been taken and recorded, but only very recently. In other rooms also I have found the temperature very many degrees higher than was stated by the master to be needed or usual, and great surprise was expressed on my drawing attention to the actual heat.

Mrs. Cooper.—The business here is only Paris dressing for bonnet foundations, either black or white, but all about the same thickness, and each piece taking on the average from an hour to an hour and a half; one, two, or three coatings of dressing are required, the first being applied by dipping the lace in the mixture, the others spread by wetting with brushes and rolling out after the piece is on the frame. The Paris dressing takes longer than any other kind.

If the air be damp or foggy outside it delays the work, but very seldom so as to make a piece take more than two hours. About 85° or 90° is the usual heat here, which is less than usual for the same kind of work. 100° would be better if they could get it, but that would be rather too much for the workpeople. If there were fixed hours of work for the younger hands no time could be made up in small rooms like these by employing more hands, or any other means that she can see, though it might if the frames were longer or more numerous. What they could not do themselves would not wait for them, as there are so many and so large dressing rooms now that some are always ready to take work and do it in time. Has lost a good deal of work so this last summer, because she does not like to go beyond about 13 hours or so, which is quite long enough. When she is tired herself she likes the people to give over too. Has found the work healthy.

Began it 30 years ago at Spencer's Rooms, Carlton Street, when she was 9 years old, and there were seven or eight girls about her age. Children do not go so young now, but if they do not learn by about 13 they are not so teachable. When she first went she had to begin at 5 in the morning and stay till 12 at night, and did that very often indeed. They thought five hours bed quite a treat if they were busy. But there was always plenty of work; it was much more regular formerly than now, as there

Lace Finishing.
Nottingham.
Mr. J. E. White.

were fewer rooms. Girls would not work such long hours now. All this work never hurt her, nor has she found it hurt any one or seen any fainting during the four years they have had these rooms. Girls sometimes buy something, as, *e.g.*, antimonial wine, to make themselves poorly if they want a half holiday. Has a woman here now who used to do so (afterwards points her out). The girls are much better when they are at full work here than when they are not, and all say so. They cannot stand being out and about more, as they all catch such bad colds from it. Has got one herself now.

Harriet Shadd.—Went to Brown's dressing rooms to work when she was 8 years old, and her two sisters went there at about the same age or a little older. (This from her apparent age seems to have been a little before the time spoken of by Mrs. Cooper.) The hour for beginning was 5 in the morning in summer always and in winter if they were busy, otherwise 8. The common time for leaving off was 10 p.m., as they were full all the year round nearly, but when they were busy it was 12. Has been in dressing rooms till now, in four altogether, and many a time been in them as late as 12, especially on Saturday night. Her health was very good formerly, but is not the same now. Has seen girls faint by the frame side, but never did so herself. It was chiefly the younger ones.

[This witness looks worn and thin.]

Ann Hart, age 15.—Half a year here and in other dressing rooms (Lambert's, Carter's, and Mason's New Basford) for three years before. The hours here are from 8 to 8, and she has not stayed after 9. There is lunch at 10½; dinner at 1, an hour; tea at 5, half an hour. At Carter's the hours were from 8 to 6½ and not later than 9, but in summer they went at 6. At Mason's they were from 8 to 7 and never after 8. There was one room and about 20 females there. Has a sister at Mallet's dressing rooms, New Basford, where the hours are from 8 till 7 and never later. Her sister does not catch cold in coming back to Nottingham at night. She is "very strong," and the room is not so hot as these. Witness always brings a cloak with her to wrap herself up well when she leaves, but does not change her things. When she first went to a dressing room she found it very hot but it never "took any effect on me." Has seen one or two faint at Carter's "at odd times" but not very often. There is no difference between the heat at Carter's and here that she sees. Is not very tired. It is when they get old that they get tired. Means by old "getting in years, about 34." "The heat makes you tired." Has 7*s.* 6*d.* set wages. Has been to Sunday school for the four last years, never to a night school; at a week day school for two years till she went out to lace drawing at 10 years old. Can read (reads well), can write "just common," and could do so "well" but has forgotten now, but never did sums. There are 40 shillings in two sovereigns. Does not remember how many hundreds there are in a thousand, but she often hears the lasses counting such things at meal times.

MR. J. L. BOTTOM'S, LACE DRESSER, SHERWOOD HILL, NOTTINGHAM.

These premises are very favourably situated for health on high ground outside the town, and are so large as to allow not only of a dressing room unusually large, viz., 325 feet long by 201 feet broad, though part is narrower, or nearly an acre and a half, and only of one story more than 20 feet high, with roof ventilation, and containing seven parallel frames, but also of a space of gravel and turf outside. But of this, owing to the great heat of the employment, the more prudent rarely avail themselves, going only from the work room to the adjoining dining room, and many remaining there but a short time. There is, however, generally speaking more colour in the faces of the women and girls here than I have seen in other dressing rooms, and the general account of the health is better. The temperature is lower than in many places, certainly to the feeling, and as far as I have observed, by the thermometer. From extracts which I took at chance from a register only kept for the last week or two, it had ranged from 75° to 88° with a dry bulb thermometer, and from 69° to 80° with a wet bulb, one entry being 82° against 79°, another 79° against 69°, these two cases being both on days described as wet. A difference of only 3° between the two bulbs at this high temperature shows a moisture about as oppressive probably as that in a very close heavy summer day, such as just before a thunderstorm. While I was there my thermometer rose to 90°, and some of the women thought that the heat was not "on," and said that it was "middling now," and was commonly from 90° to 95°. Compared, however, with many other rooms, it was fresh and pleasant.

But even here under favourable conditions the effects of the employment were apparent. When I entered the room in the dinner interval many were languidly lying at full length or sitting at half length on the floor, one with the front of her dress entirely thrown open, another sitting on a stool with visible perspiration on her face; and the general whiteness of arm and transparency of complexion were very noticeable.

The place is fitted with every convenience for washing, &c. A library, chiefly of religious books, is kept, and I was told by some of the women that these were much read till they became known, and that a new stock had not been added. Many were sitting or reclining about reading books, papers, &c., or doing needle work. A group of five were engaged in reading Bibles which they had brought with them.

Mr. J. L. Bottom.—Some years since I gave evidence upon the inquiry into Bleach Works, &c., and on referring to that I find that it applies equally to the present time, except as to the number of overhours, which is now occasionally five in a day,—the number of females employed, and the temperature, both of which have been increased,—and the use of some frames worked by machinery, which has been discontinued. I have machinery, but it is rarely used, and then only for a purpose (pressing out the dressing by rollers), which can be done almost as well by hand, and certainly is not worth the employment of an engine on purpose.

At that time the expediency of applying regulations to lace factories had not been so fully discussed as it since has. The difficulties which lace dressers would meet with owing to the fluctuations of work depending upon changes of fashion are of the same kind as those felt by the lace makers. Indeed a maker must run a risk which we do not, as he must decide upon his patterns in sufficient time, and this often considerable, to be in a position to produce goods when the season comes, though he keeps as little stock as possible. Our only risk is that of keeping up an establishment large enough to do the orders which we may get quickly enough to keep ourselves from losing any custom, and this risk we must and do incur, and from my experience it is not usual to lose much by inability to do the work as speedily as required. If other establishments were under equal restrictions there would be, so far, less room for such loss by a demand for immediate execution of an order. But the dressing rooms in Nottingham have increased very much of late, and beyond what is required; and in consequence

Lace Finishing. Nottingham. Mr. J. E. White.

of this excess, there are always some ready for the work which others cannot do. If it were not, however, for this excess the dressers would be put in a greater difficulty than the makers by any restriction of hours, as the lace is not sent to be dressed as uniformly as it is made, but is kept in stock till the manufacturer has occasion to finish it, which he does not do till the last moment when he feels sure to want it finished in a particular way or gets a positive order. Consequently the orders given to dressers are more sudden and occasion more pressure than is felt by lace makers.

Again a lace making machine can be stopped at a given time without injury. Dressing cannot. Each piece of my lace, nearly all silk, and of nearly all kinds, with a very little light cotton, takes on an average about a quarter of an hour to put it on the frame and spread the dressing, and from half to three-quarters of an hour to dry, and this may be more or less, according to the weather. The moisture outside must be great to affect the work inside, but it is difficult to counteract frost or great cold by applying extra heat. If the piece be taken off too soon it will stick together and spoil. Till it is dry it must be watched, and the frame narrowed by racking in, if silk, and widened by racking out, if cotton, as the former contracts and the latter expands, in proportion to the thickness of the dressing. But one person can attend to the whole frame for this purpose. When the dressing is once set, *i.e.* dry, it may be left for a couple of hours without injury, but not all night. The odd intervals could not be filled up with short pieces of work. It is more convenient to dress pieces of the same class of material one after the other. No other respect in which this business differs, as regards restrictions on labour, from that of lace making occurs to me.

The age at which I like to take girls is from 14 to 16, as that is the best for learning, and the labour is cheaper than that of elder girls or women, but if the employment of any under 18 exposed me to the inconvenience of being under legislative interference, according to my present views, notwithstanding the difficulty of obtaining adults suitable for the work when most needed, and the higher wages which I should have to pay, I should give up those under 18. On experience I might alter these views. I am no advocate, however, for late hours when they can be avoided, as they have many evils.

The room is whitewashed every year or two, and the floor cleaned every two or three weeks more or less, according as required by the greater or less amount of work.

I have found the employment fairly healthy. I attribute this partly to the great space inside and out and good ventilation. Faintings are not frequent, and are generally traceable to want of care and neglect of early treatment, even though it be offered.

Elizabeth Smith.—Has been here ten years and is now 24. Some come as learners, though grown up, if learners are wanted. Learners rack out, and strip off the pieces and "middle turn over," *i.e.* get under the piece as it is being taken off, if very broad, and support the middle. They have to step over the "rack bars," (which connect the opposite sides of the frame and move them in or out) and if these are high, as many of them are, it tears the clothes very much and besides is not decent. But lately some have been lowered for the broad pieces. They generally work four pieces on four different frames, taking off the first as soon as they have finished the last, so that each takes about a quarter of an hour to put on and three-quarters of an hour to dry, may be more or less. Has only been away from work for a week herself all the time she has been here. There are not so many given to fainting now as there were. Fancies the rooms are cooler. But many catch cold from going out at dinner without putting anything on. It is chiefly the young ones who have no thought. Hardly goes out of the room herself except into the dining room from morning to night, and then changes her working dress, which is very thin, for a thick one and puts on a warm shawl. Hangs her working dress up to dry. It is wet enough.

[This witness has colour, but of a flushy kind.]

Eliza Collins.—Has been here seven years (appears about 27, and gives much the same account as last witness). Has had very good health. Never goes out of the doors till night. Could not do so or would "be like a many of them." Always shifts her things before she leaves in the tea room, and hangs them up to dry, and puts on thick clothes. When she gets home has to shut the door and keep up a good fire to keep herself warm. The hours are 8 till 6, or if they are busy, which is for about three months, from 6 till 8, or 9, or 9½. Those who take the pieces off have to stay about half an hour later than the others.

[This woman attracted my notice by the remarkable fact of her having a healthy complexion.]

Fanny Wildbore, age 17.—Has been here six months, and before that worked in the silk mill, part of the same premises. When she came here they began work regularly at 6 a.m., and worked till after 10 p.m., for about a couple of months. They seldom left before 10 and not often later, though it has been 10½. At first she found it very hot and could hardly stand it till after about four or five weeks. Had the headache very bad for a week or two, and for about a week her legs ached but did not swell, nor did she feel faint. (Coughs badly.) Has got a very bad cold now. Was very bad two nights ago with pain in her head and her throat so sore, and yesterday trembled all day. Does not know how she caught it, but it may have been because her boots are very bad. If both sets are at work at once it is very hot and makes her wet. Does not keep any things here to change, though some do. Had "a good deal of health at the mill" (silk) and never any pain.

Dinner is at 1. If they are in the middle of a piece it keeps them five minutes or from that to 10, not more. They work in two different sets, and one of these again is split into two, who do different parts of the work, one straightening the other rolling. Has 5*s.* set wages to begin with for six months and will be raised every three months. Had about 5*s.* at the silk mill, more or less, according to what she earned. Hardly ever went to Sunday school and never to any other school. Mother was ill and could not spare her. Can say these letters ("I do," &c.) but cannot sound them into a word. Does not remember what she heard the preacher say at chapel as she hardly ever went.

MESSRS. G. AND J. B. BAKER'S, LACE DRESSERS, SHERWOOD STREET, NOTTINGHAM.

Mr. F. Baker.—The proportion of people, not adults, in our employment is so small that any regulations affecting their labour would hardly make an appreciable difference, but the nature of our business is the same as that of other lace dressers. We dress only silk lace and a fabric for gloves, either "taffeta" (silk) or "Lille" (cotton) and for this we require steam power for hydraulic pressure. Dressing is a business which depends so much upon fashion and varies so much with the nature of the material that there is no uniformity as to the season of being busy or the length of the operation. Our pieces take on the average about 20 minutes, a few ½ or ¾ of an hour, and occasionally from the state of the external air much longer. Cotton is dipped in the dressing before it is put on and only needs drying, which unless it be of a very thick kind, takes on the average about 10 minutes. Silk being a more delicate and also a much more valuable material must be put on the frame with much greater care, and the dressing is

spread afterwards, all which increases the time. Both cold and moisture affect the work, but in ordinary cases this can be counteracted by increasing the heat and by a suitable arrangement of the materials to be dressed.

Some kinds, as strong black materials which must be stiff and yet in which any superfluous particles of dressing left on would be visible, require to dry slowly, so as to allow of the particles being removed, and they are kept till the end of the day when the air is hotter, as well as moister from the evaporation of the previous pieces and the dressing which has fallen from them to the ground. A short piece can be put on and the dressing spread in less time than if it be larger. For white a dry air is best. Still arrangements of a like kind cannot be made so as to allow of fixing any precise time for leaving off work. Also if the dressing mixture which had been prepared could not all be used on the same day, it would in certain cases be spoiled by keeping to the next, and it would not be possible to foretell the exact quantity that would be needed. I am not acquainted with bleaching enough to know whether the difficulties of this kind which are found in dressing are greater than those of that business. The difficulties arising from lace being a fancy article are the same as those which apply to lace making.

Our hours are from 8 till 7, or rather above that, through the greater part of an ordinary year and pretty equally spread, for though it is a season business in some degree, the home, spring, and autumn seasons, the American and the German, falling at different times catch one another up. But the last few years have been unusually bad.

If we found occasion to employ adults only it would make no difference beyond the increased wages. For learning a girl of 15 is no better than one of 20. It is only the lower rate of payment which leads to the employment of the younger ones. If more hands were taken in the more experienced of the others could be put to those parts of the work requiring greater skill and more delicate treatment.

We consider dressing a long way more healthy than the other branches of the lace trade, either in factories or warehouses. On going into a work room in a warehouse at night where a large number of females are at work together and with gas, I have felt the heat and foul air intolerable, and yet the people themselves do not perceive it. No idea can be formed of it without going into one of these rooms.

For our rooms we do not like a temperature less than 84°, and black silk wants 90°. Perhaps on the average the rooms are at about 86°. But the space is large, there is necessarily much ventilation, and the heat causes a free perspiration, which like a Turkish bath throws off all noxious matter. Besides the place is kept carefully clean, one woman being employed for nothing else but to clean the floors of two of the rooms, the others being done by the workpeople; and for light and tidiness the rooms are whitewashed every two years, though this is oftener, probably, than is required for health alone. If any of the women are not healthy it is from their own fault in not eating wholesome food, but living upon slops, and still more from their own irregularity of life after they have left their work at night.

I have often thought on the question of dressing being put under regulations, especially as I was given to understand that we should come under the Bleaching Act, but I do not see how regularity is possible.

[This statement was concurred in by the other partner.]

Elizabeth Chadwick, age 15.—Pulls and straightens. Has worked in dressing rooms since she was 9. First went to Bradbury's in Queen's Road. There are 4 floors there and a set of hands to each two floors. In her two rooms there were about seven girls, some quite young, 20 women, and two or three men, and about the same in the other two rooms. The hours there were from 8 till 7, with an hour for dinner and half an hour for tea. When they were busy they went at 6 and stayed till 8 or 9, but not later.

When they did thick cottons, they used to have a great heat. It made her feel faint at times. Some used often to faint and fall right down.

One young woman used to faint about once a week for a couple of months. She then had to leave and stay at home for three months, and then came back for a short time.

Another fainted about once a fortnight. These two between them were generally going.

Several others used to say that they were very hot and felt as if they should faint, but they did not do so.

A girl of 15 or 16 years in the rooms below witness had fits, sometimes one in a month, sometimes one in three months, and they sometimes lasted a couple of hours. Witness could hear her scream "so" (imitating it) from the floors below.

Has not been ill herself, and has "eaten a deal more" since she has been at dressing. Mother says she has got a horse's appetite.

Believes some young women faint in the top room here, but does not know. They have not been busy since she has been here, viz., four months.

The hours here are from 8 till 7, with an hour for dinner at 1, and 35 minutes for tea at about 5.

Changes her dress for work. Most of them do, or they would tear their dresses against the pins and dirty them very much.

Has set wages, 8*s*. a week.

Goes to school every Sunday, and has been to a night school for two winters and to a day school for the year before she went to work. Can read in the Testament without spelling many words, and write a little, and do addition and subtraction.

[Though the dressing room had not struck me as hot, perspiration was standing on this girl's face while with me in a cool room downstairs.]

MR. J. B. CARTER'S, LACE DRESSER, WILFORD ROAD, NOTTINGHAM.

This is one large room running along one floor of a new factory of 258 feet in length. The room was very hot, about 90° I was told, but it felt much hotter; a little girl said "It's often a deal hotter than now." The perspiration was standing in large drops on the foreheads of several not at work but waiting for a piece. The faces of all were bloodless and waxen. The appearance of the women and girls, as usual in dressing rooms, was much below that of the warehouse class in dress and cleanliness. This is owing in part to the dirty nature of the work. They were described by the master as a "rough lot," who he believed could not read or write.

Mr. John Burdibant Carter.—Is a dresser; chiefly of silk quillings. The work is done chiefly by women. Children are not necessary and are better out of the place, though he has one or two. If girls under 18 had to leave work at a given time, the others must leave too, as they all work together. If they left at 6, even if they began at 6, it would not be sufficient for his work, for as it is he often has to begin at 6 and work till 9 p.m., it may happen for three weeks together. Does not like to work longer than that, but if he did he could often fill the whole 24 hours. He could easily get the work done by employing only women, the only objection to which would be a slight increase of wages. Still the tendency of any restrictions on the hours of work, even if it applied to all employers alike, would be to take business from him, and one or two others in his position who are generally full, and give it to places large enough, as some are, to execute any amount of

Lace Finishing. Nottingham. Mr. J. E. White.

orders at once, or to other empty places. When customers are once obliged to leave they are not likely to return, as they do not like changing about. This would be a personal loss to himself, though it would spread the business more evenly over the trade. If he thought it likely to answer he could avoid this by getting larger premises. That would be a question of prudence.

Perfect regularity as to times of meals and leaving work, &c., would cause a very serious loss, *i.e.* a loss of from a few minutes to half an hour at each stoppage, his pieces taking on the average about half an hour. If he had more rooms, the hands from one could help those in the other, so that there would not be the same loss. The work comes off better in fine warm weather than in damp or cold, but this is a difference not worth mentioning. He has to remedy it by applying more heat.

Sarah Ann Marshall, age 17.—Went to Baker's getting up rooms at 9 years old, and stayed 1½ years. Had been at clipping for a year before, and clipped again till she came here more than a year ago. Could make as much at clipping then, but not now, because there is not so much to do. Had a deal rather be here. It made her very hot at first, but it did not make her feel faint or make her back or chest ache; but she has had to go home for a sick head ache, once for a day or two. There "are not many that faint now." Has seen "odd ones" faint, but they have left. Can eat a good dinner. Would catch cold if she went out without her things, so always brings a cloak, a warm one, even in summer. They have a washing place, as they get very dirty when doing the black lace. Nearly all the lace is rolled, but not all of it caned. Hours are 8 till 6½, but on Saturday leaves earlier without tea. Has an hour for dinner and half an hour for tea, as near 1 and 5 as the work is done, but always has the full time. If they come early they have breakfast here, about the bottom of the stairs. When "very throng" in summer they work from 6 a.m. to 9 p.m. "week in and week out." Has done so for several weeks or two or three months together. Has set wages, 8*s.* and 2*d.* an hour overtime. When her set wages were 6*s.* 6*d.* she has got 9*s.* 6*d.* with overtime; did so six months ago. There is generally overtime in summer. Has this for herself, and gives all the rest to mother. Was at Sunday school four years and left a year back, at night school at odd times, and to day school for a few weeks when about 8 or 9. Knows the letters. (Cannot read words of three letters.) Went to chapel when at Sunday school, but never before or since. Does not remember anything she heard, or know who made the world.

Catherine Levers, age 11.—Carries along a box with the "dress" when it is put on the lace. Came here, when they first began to come at 6. Stayed regularly till 8 or 9 p.m., but now leaves early, as at 6 and 4. Meals same as last witness. Dinner is never after 2. All stay to tea. Has set wages 3*s.*, and has got 4*s.* 7*d.* Went to Sunday school till she had got no clothes. Father was a stockener and had plenty of work. Never to evening school, but was at a day school from 2 years old to 9. Can read the Bible and Testament, but nearly forgets now. (Reads easy words.) Can write with a pen a bit. Has done sums but forgets what they call them. 3 times 11 is 32—is 34.

Finds it very hot, but is never badly. Some of the "big uns" are. They faint and tumble down. Has seen two or three or four do so. Has not headaches, but it makes her "sweat awful." It did all day at first, and some of the others do very much. It is a deal hotter sometimes than it is to-day (*see* above). Only have the windows open when washing the "pins" *i.e.* the frames.

[This girl after being some time in a cool place with me was wiping the perspiration from her forehead. Small red veins showed over the surface of her skin, a large part of her neck and breast being left bare through her ragged clothes. Her eyes were bloodshot.]

MESSRS. J. & W. LAMBERT'S, LACE DRESSERS, LOWER TALBOT STREET, NOTTINGHAM.

These are very large premises lately built in an airy situation. There are four dressing rooms, each filling the whole area of the building (*i.e.* 302 × 75½ feet) on a separate floor and 10 feet high, and other auxiliary processes are carried on beneath. The space required in proportion to the number of people employed in dressing rooms is very large, and there are usually windows running along each side at small intervals, fresh air being necessary for many parts of the work. The full number of people required at this establishment is, I was told, about 230, and as many of these are employed in other parts of the building in preparing the dressing, &c., the number in each room is probably not much above 50. This would allow to each person a space of $\left(\frac{302 \times 75 \times 10}{50}\right)$ = about 4,530 cubic feet. But these room are unusually large.

Mr. John Lambert.—Our premises being so large, our business embraces almost every kind of lace dressing, and affords a fair specimen of the requirements of the trade.

Children are not desirable in this business, but by far the greater part of the work is done by females from 13 or 14 upwards, and all must work the same hours.

Taking the year round, a day of 12 hours, including meal times, would be ample. But about a third of the year is busy, a third moderate, and a third very slack. If that amount of hours could be distributed accordingly, say four months from 6 a.m. to 8 p.m., four months from 8 to 8, and four months from 8 to 6, it would give all the liberty that was needed, and, I should say, would satisfy every one.

Our regular hours are from 8 till 7. I find on looking at my books for the past year that the average of overhours in about six or seven of the busiest weeks was 18, or equivalent to about two days a week. In the whole quarter from the 1st of July to the 1st of October there were 187 over hours, *i.e.*, something more than two hours for each working day. The busy time is from the beginning of May to towards the middle of August.

Owing to the peculiar nature of the business, which requires that each piece of lace must be finished when once begun, or be spoiled, and to the uncertainty of the time required for each, which varies not only with the nature of the material but from accidental causes, but is on the average, say from a quarter of an hour to 1½ or two hours, serious loss would be incurred by having to leave work at a fixed hour for meals, or at the end of the day, even as regards the same room, and still more so as regards the different rooms in which different classes of work are done. A margin of half an hour, however, would meet this sufficiently, the full time being still given for meals in each case.

Whitewashing these premises would cost 100*l.*, and I think that such a burden ought not to be imposed oftener than necessity requires. Having regard to the great space, and the amount of fresh air constantly admitted from the windows, once in three years would be as much as health or appearance requires. No one could object to a power in an inspector to order cleaning, washing, &c., if he found it really wanted. Require-

ments beyond what are necessary are apt to be evaded or neglected.

Phœbe Fells, age 14.—Works in the floss rooms. Hours are from 8 till 6; when busy 6 a.m. to 9 p.m. or after, but not much after; about 10 is the latest. Dinner at 1, an hour, and tea at 5, half an hour. The time is as near to 1 and 5 as the work is done. Changes her dress in the work room before and after work. Some change, others do not. Has 5*s.* set wages, and has made 6*s.*, but not lately. Has gone to Sunday school regularly for two years; has been to a night school sometimes. Went to a day school "when they began the Factory "Acts." (This was when it was thought that the rooms would come under the Bleach Works Act), but had been before when she was in the country. Can read, and can write her name. Teacher learned her addition, subtraction, and multiplication, and she could do them. Has the headache, but not often, and does not faint. Some say they often do faint in the rooms.

Emma Frost.—Has been in dressing rooms since she was 15 or 16. Is now 24. The hours are 8 till 6, but in busy times have been from 6 a.m. to 9½ or 10 p.m. Has been later than that here, but not for the last two or three years; never till midnight. Her set wages of 10*s.*, with 2*d.* an hour for overtime, have come to 13*s.* 6*d.* a week. Works in the cotton dressing room here. Cotton is got on quicker than silk. Some pieces are dried in five minutes. Others take 10, 15, or 30 minutes. The thicker pieces want more heat, but it is the air which dries more than the heat. The windows are open before a piece is put on. When it is being put on they are shut; when it is on they are opened a little. It is not often very hot here; not so hot as some places. It is worst when the gas is lit. Has "seen odd ones" faint; perhaps one in three or four months. They faint quite away. This work suits herself "a deal better" than sitting in a house, but is thirsty work. Has good health and appetite.

[This witness is not healthy looking, and is wasted and old looking for a woman of 24.]

MR. JOHN WEBSTER'S, LACE DRESSER, DAKEYNE STREET, NOTTINGHAM.

Mr. John Webster.—Dresses cotton lace, all of it black, except about two per cent., which is coloured. Coloured lace goes chiefly to hot countries, such as Turkey, and that branch of the business was very much injured by the Russian war. In consequence of his dressing black lace his busy times are November and February. When very busy he must work overtime, perhaps for three or four hours a day, or he would lose the work, which would go to other places. Of course if all were restricted alike from working overtime, this would not be the case. Still to avoid the inconvenience of being under any laws by reason of employing girls under 18 he would take care to have only those above that age.

It is true that there are now more dressing rooms in Nottingham than are required for the amount of lace produced. For a large part of the year it does not pay to keep the hands, the work not being enough to keep them profitably employed.

The people get much less harm by coming at their present hours than they would by coming early in a winter morning. If they leave late they have had their tea and are warm, but if they come early they have had no breakfast.

Could not possibly spare either the time or the money for having the place whitewashed or cleaned, even out of the busy times, and considering the space and the healthiness of the employment it is not necessary. His rooms, which are on three floors, were 210 × 39 feet each, but have now been enlarged by the addition to the end of each of a space of 138 × 45 feet, the height being 8 feet throughout. The last time they were whitewashed was before they were lengthened. It then cost 36*l.* Once in five or six or seven years is sufficient. The floors, which are of plaster, are not ever washed, but the starch which drops from the lace is scraped off, unless they are busy, about once a month.

Also there is plenty of fresh air. When a piece is put on, all the windows must be kept closed till the dressing is spread evenly over the piece, but then all on one side are opened for about four inches to let in air in order to carry the heat, which is supplied by iron pipes heated by steam, across to the other side of the room, so as to dry the dressing.

A heavy piece, such as that used for the foundations of bonnets, will dry in 20 minutes, and other lace on an average of from 5 to 10 minutes. Is sure that is not beneath the time usually required, but in damp or winter weather the time is doubled. Cannot apply more heat to counteract this. The average temperature is about 70°. (But see temperature of rooms next described.—J. E. W.)

When thick goods are wanted they are often put on over night or before dinner, and left to themselves to dry. This does not spoil them. The cotton stretches, but its own weight keeps it smooth and even, and prevents injury by wrinkles, &c.

For 10 years provided a comfortable school-room well lighted and warmed and good teachers for his people, bringing in pupils from a Sunday school as a nucleus. The school hour was 6 p.m. About 15 only of the workpeople used to have their names down, and of these the average attendance was not more than four or five. The girls wished to be off in the streets; so he was obliged to give the school up.

Sarah Key, age 15.—Rolls and straightens. Here a year. At Thornley's (dressing rooms) for two or three years, and half a year at another dressing room. The hours here are 8 till 7 now, and 6 till 6, or 7 or 7½ in summer. "It is not so late as some places." Has good health now, but had not when she first went to a dressing room. Caught a cold from going out of the dressing room without her bonnet, and it brought on a fever. The doctor said it was because she was not used to the work, but that she would become so, and then it might suit her for a while perhaps, but it would not always. She has "gotten used to it now." A girl here used often to have fits; used to be "kickety and "knocking about, but did not make much noise." Did not see fits at Thornley's; the rooms were not so hot as these generally. Has pains in her legs and her feet swell at night at times when she gets home, but they go down again by the morning. Has pains in her chest and stomach; cannot breathe easily. Has a very bad cough begin as soon as she gets out into the cold air at night. Does not put anything on at first, because it is so hot, but after she has gone some way she does. Brings her breakfast in summer, and has it at 8 in the tea-room here. Dinner at 1; an hour. Goes home to it. Tea at 5; half an hour. Has set wages, 6*s.* 6*d.* a week. Goes to a Sunday school sometimes; never was at a night or a weekday school. Says she can read. (Does not know all the letters.) Cannot write or sum. Has been to "a "church and chapel and all," and heard about "the "Scriptures and Jesus, and such things."

MESSRS. WRIGHT & CO.'S, SILK LACE DRESSERS, DAKEYNE STREET, NOTTINGHAM.

This room is above the new part only of Webster's, described above, and is therefore quite small. For this work a temperature of 90° was said to be what was wished, but that it could not always be got in consequence of the distance which the steam has to travel. While I was there it was rising, and just passed 80°. This, however, with the moisture of the heat from the evaporation of the starch

Lace Finishing. Nottingham. Mr. J. E. White.

dressing is enough to cause considerable perspiration in a person not used to such places, if staying in the room for some little time.

Mr. Charles John Mulholland.—Is one of the firm, and has been practically acquainted with lace dressing for nine years. Children are not careful enough for the work here, but the elder girls must work with the women.

The busy time is from the beginning of March to July or August, and, in a good season such as the last, till October. For part of that time they must work late, till 10 or more. Has known trade good all the year round, the autumn season, with black lace, catching up the spring. The usual hour for beginning work in Nottingham is not till 8 on account of a couple of hours being wanted to get up the steam to warm the places. Beginning at 6, therefore, would require the engineer to come at 4, but witness would much prefer that if the people could be got to come. With the exception of a few peculiar kinds of work which can only be done at certain places, all the lace in Nottingham could easily be dressed within 12 hours a day at the present dressing rooms if it were more equally spread amongst them. It would certainly be better for the workpeople and for the employers as well if the work could be done in more regular hours, but the effect of any restrictions as to the labour of those employed would be more in favour of the large establishments, which can nearly always take any amount of work, to the prejudice of the small. If, therefore, the labour of girls under 18 were limited in any way, he would have either to enlarge the premises or give up those girls and employ only those over that age. The former course would involve the risk of having a larger place than could be regularly filled, and consequently standing idle at a loss; he would therefore probably give up the girls, and pay the increased wages to elder hands.

The temperature wanted for silk quillings is not far from 100°; say, perhaps, 96°.

[Mr. Wright, the senior partner, afterwards concurred in the whole of this statement.]

Jane Smith, age 21.—A year here, four years at Lambert's, and more than a year at Mason's, Old Basford (all dressing rooms). Does anything. Hours here are 8 till 6, but they are "throngish in summer," and she stayed often till 11 or 10 p.m. Has middling health. Does not faint; others did. Lambert's was very hot; about the same as this. There used to be some faint and fall down most weeks. There were "so many that were subject to it," but she does not know whether it was the heat. Some used to faint at Mason's too. The thing which she is most subject to here is cramp. Has it when at work, and has to give over.

[Looks unhealthy and pinched.]

Mary Ann Wainer, age 15.—Two months here. Was 3½ years at Lamberts. Some used to faint there. Hours here are 8 till 6. Does not ever stay much later than 9 or 20 minutes to 10. Dinner at 1; an hour. Goes home. Tea at 5; half an hour. Many have it in a room down stairs. Washes in the dipping room. Gets 5*s.* a week in full work. Has been to Sunday school for a long while, never to a night school, and to a day school only when in the Union. Knows her letters, and has written on a slate, but has never done any sums.

MR. JAMES THORNLEY'S, LACE DRESSER, WALKER STREET, SNEINTON.

No children or young persons have been employed here since the date of the Bleach Works Act coming into operation, of which notice was sent by the Factory Inspector, but the place is not now treated as under the Act.

Mr. John Thornley.—Is brother to the proprietor, and engaged in the dressing rooms. About 20 people, all adults, are employed here now, a few girls between the ages of 14 and 18 having been dismissed when notice of the Bleach Works Act was sent by the Factory Inspector. Before that time some of the dressers employed children, especially where quillings were dressed, and there was more light work wanted which the children could do quite as well as elder people and at less cost. But as the number of children was not great they were nearly all given up at the same time to avoid the trouble of sending them to school, and in some places young persons were given up too. A grown up person may easily learn the work with attention, but there are nearly always enough to be found who are familiar with the work already, if more happen to be wanted, as is the case here in busy times. From 15 to 16 is quite early enough to begin at such a work as dressing. The temperature required for this branch, which is cotton lace of different kinds, is about 80° or 86°, rarely above 80. For lace for foundations of bonnets, which wants Paris dressing, from 96° to 100° is usual. This was formerly dressed here. For the last two or three years there has been very little doing, but before then two or three of the large houses had often double sets and worked all the 24 hours round; but they may have been chiefly of adults. Those who did not use double sets had sometimes to work long hours, as in summer from 6 till 7 or 8, and sometimes till 10, and it has been till 12. Did so here years ago, but now there are so many dressing rooms and so much competition that there is no occasion for it.

According to the present number and size of dressing rooms in Nottingham, if the work fell equally amongst them all, they could dress all the lace that was wanted in 10 hours a day work, with meals not included. They could do this even in summer according to the amount of work for the last two or three years, but he believes that they could do it in any year as the rooms are so many more that they were when last trade was better. Unless there be some general rule applying to all, as to limits of hours, some dressing rooms will do whatever is sent to them.

ORDYNOT & OXPRING'S, LACE DRESSERS, WOOLPACK LANE, NOTTINGHAM.

This is a small place with two children, one young person and 32 adults.

Sarah Ency, age 11.—"Pulls." Hours are 8 till 7 or 8, not much later, with an hour for dinner, at home, about 1, and half an hour for tea at 4½. Has that on the balcony by herself so as not to be with the elder ones (as stated by the mistress, to keep her from their talk, which is unsuitable for her). Washes at the tap before she goes away. Gets 3*s.* set wages, and takes it all to mother. Sunday school twice a day and chapel afterwards. The priest tells them about the Son of God dying. Was at a day school for two years, but left two years ago. Used to sew and copy short words on a slate. (Spells slowly.) "Larks in a nest." Larks are "games in the street." Has not heard of their singing, and has never been out in the country. A wolf is an "ass." A lion "walks "in the carts at the show." (It is Fair time.) The sea is full of water and ships.

John Jarvis, age 11.—Washes the frames and rolls out the pieces. Same hours and meals as last witness. Has 3*s.* Sunday school twice a day for two last years, and day school for 2½ years till he went to work, more than a year, at winding. Knows his

Lace Finishing
Nottingham.
Mr. J. E. White

letters (not all). As to sums "did two or three "square uns," but does not know what they were called. 13 and 13 is 26.

Keziah Foster, age 17.—Has been at this and another dressing room for four years. Hours are 8 till 7 or 6½ or 8. Has gone to Sunday school for three years. Was at a week day school from 8 or 9 years old till 13. Knows her letters. (Cannot spell.) Has not heard of France. Has been very bad with tic for 5 or 6 months.

[This is a very pale, poverty-stricken looking girl, and seems naturally dull, as appears from inability to read after a far greater amount of school than usual. I afterwards saw her at a Sunday school in a class for Testament reading set apart for those who come old, *i.e.* about 16 and upwards, unable to read.]

MESSRS. COX AND SONS', LACE DRESSERS, CARRINGTON STREET AND QUEEN'S ROAD, NOTTINGHAM.

At the former of these establishments, a small old building, nothing was going on. The only young persons were two youths of 15 and 17, with pale faces, and there were two men and nine women. The latter are large newly built premises 240 feet long and occupying four out of six storys, and were used till a month or two since for the same purpose by Messrs. Bradbury and Co. No stranger has ever been admitted here for fear of trade secrets becoming known. There was also a strong objection, as expressed at least by a young Mr. Cox, to helping the inquiry in any way or to allowing me to see either place or people, as the firm "would gain nothing by it."

It was stated, however, that the business was carried on in the same way and chiefly by the same hands as under the Messrs. Bradbury. An account of these is given by a witness formerly here.

(*See statement of Elizabeth Chadwick, now at Mr. Baker's dressing rooms.*)

MESSRS. THOS. ADAMS AND CO.'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

This establishment is a remarkable instance of the regard shown by many employers for the welfare and comfort of their people. The building is very large, and planned so as to give as large a frontage as possible to the outer air, a point of great importance. A large room is set apart as a dining room for those who do not go home, and used for this purpose by about 100 daily, and for tea by nearly all, but the numbers being so large are divided. A woman is employed to prepare and serve their meals, there being a steam oven and all proper appliances for the purpose, teacups, &c. being supplied. Close by is a room for washing before leaving work, as well as white delft washing places, purposely left open to view, and a separate closet, in each work room. There is another tea room for the men. During meals the work rooms are closed and the windows opened, for which the overlooker is responsible. There is a chapel and a chaplain, and the work begins each day with a short service, which is attended by nearly all, and is understood to be part of the system of the place. There are also a school-room provided with books, maps, &c. in which the chaplain has classes for religious and other instruction in the evening; a book club; a sick club, a payment of 1*d.* a week to which entitles to medical attendance; a sick fund for further purposes; and a savings bank. Alterations have been made in parts of the building to increase its healthiness, and the bonnet front department, in which a large amount of heat and bad air is unavoidable, placed at the top of the building where the greatest amount of ventilation by windows seems obtainable. It appears, however, from the statement of the girls (*see* below) that the windows cannot be, or are not, opened, and that the girls suffer from the heat and bad air. The establishment is commonly spoken of as one in which arrangements of all kinds for the welfare of those employed have been carried to their fullest extent.

Mr. Thomas Adams.—By compelling us to dismiss our children and young persons at 6 o'clock, their time of labour will be limited to nine hours per day in the summer and eight and a half in the winter months, allowing one hour for dinner, as we do not commence business until 8 o'clock in the summer and 8.30 in the winter. It would not be possible to make any alteration in this latter arrangement, because, 1st, the greater portion of the hands do not work alone, but as assistants to adults, so that bringing their time to the factory hour of 6 o'clock would compel the attendance of the whole establishment at that time, which would be simply impossible to effect; 2nd, Factories are generally situated on the outskirts of the town, and the workpeople, for the most part, live in their immediate vicinity. Warehouses, on the contrary, are in its centre, and the hands have to come to work from a distance of from one to three miles. It is necessary that they should breakfast before they come.

If the children are taken away part of their time for education, the adults must cease work also; and as this would stop the progress of business, we should not in such a case employ children.

The difficulty *could* be met by increasing the number of hands, but the earnings of the employed would be proportionably decreased.

By employing only older persons the children would be thrown entirely out of work.

The nature of their employment would not permit a double set of hands.

In regard to such restrictions the case of lace making and lace finishing is entirely different; in the former case the children act more independently, in the latter they are generally auxiliaries.

There is no special objection to a periodical lime-washing of the work rooms; but as the nature of the goods requires the utmost cleanliness, it is hardly necessary to legislate on this matter. It is for the interest of the employer to have the floors frequently washed and the walls kept free from dust.

There is no doubt that children and young persons frequently suffer from over work in warehouses, and more *especially in private houses, so called*, and it may be desirable that the Government should step in for their protection. If the employment of children after 7 o'clock were prohibited, thus substituting 7 for 6, they would be protected from such an amount of labour as would be prejudicial to their health; they would be able to earn a fair day's wages, and they would have time also to attend an evening school. Whatever may be the number of hours per day that the labour of young persons and children may be restricted to in warehouses, it should be distinctly remembered that business cannot in these establishments commence before 8 o'clock. The necessity for the attendance of all hands, of apprentices, of young men who give out and superintend the work,

ace Finishing.
Nottingham.
Ir. J. E. White.

the nature of the work itself, and the class of people, altogether different from factory hands, render an earlier hour impossible.

Mr. Thomas Cave.—Is general superintendent of the establishment and was formerly in the lace business for many years. It is very desirable that the hours of work should not be so long as they are in many places. Where many people are assembled together, especially when gas is used, which in winter must be for several hours,—*i.e.* from 4 o'clock onwards, —the rooms become hot and close. In many warehouses little children are occasionally kept till 10 or 11 p.m., the rooms becoming hotter and closer all the while. Is convinced from experience that long hours of work are bad not only for the children but also for the others, and not in the end profitable to the employers. When walking through the rooms at night, especially if it is late, towards 9 o'clock, can see that the girls are weary and not doing so much work, even though they may be doing piece work, and notices that those who have stayed late at night are apt to come late next morning, and are not then so fresh as at other times. From 8 till 6½ is long enough for them, and they should not be kept later. If they are they have no time to do anything to their clothes, &c. at home, and have to throw all this off till Sunday. But if the hours are shortened it will not be necessary or desirable to have a Saturday half holiday. It must of course diminish the wages. But it will be of very little use to make any regulations for warehouses, factories, &c. unless they extend also to the private houses, where much of the lace work is done by girls employed by a mistress. At these houses children, some of them very young, work often very late. Much money has been made in this way by some of the mistresses, who employ sometimes from 20 to 30 girls, though from 12 to 15 is perhaps the common number.

Consumption is common amongst warehouse girls, and some have died from it here.

Rev. Edward Davies.—I have been chaplain to the establishment of Messrs. Thos. Adams and Co. for seven years, and was the first appointed. I have a short service every morning at 8. It is understood by all on being taken into the warehouse that this forms part of the regular arrangements of the place, in fact as part of the employer's time, and on this ground there is a small fine for non-attendance which goes into the sick fund. That it forms no objection however is clear from the invariable good attendance and the number of names always on the books for admission, in some cases for months. In winter evenings I have also classes for instruction in religion and other matters, both for children and adults. Some of the children come so young that they are not able to read. However, on going over the warehouse once, I found that the children, who were fewer, however, than they are now, without exception attended Sunday school. It is on this that the parents depend for their education. I also procure any books that may be wished to be purchased, generally to the amount of 40*l.* a year, and there is a library for the sick.

The moral character of the workpeople has improved in a remarkable manner in the last few years. Formerly girls often had to leave from being with child, but this is now very uncommon. There is also a good deal of kindness shown by them to one another. Whenever a girl is ill and without friends of her own to nurse her, her companions collect money and will give up their own work in turns to attend her day and night. Unhappily illness is not unfrequent. Consumption is unusually common amongst the girls here. In the last month I have attended four cases of this disease amongst them, of which two have ended fatally, and there are two or three other cases of a very like character. Cases of weakness of chest and general debility are very common indeed. These do not, however, generally go to the hospital. A mother lately complained to me that the health of her child, a girl of about 11, who was well and in strong health when she came, was quite undermined, and that she had brought back her dinner uneaten. I attribute this bad health to the girls when young working late in hot rooms, either in warehouses or in private houses in the town, in which lace is finished. A woman, sometimes a mere lodger, will bring half a dozen children together to work for her, and often has orders which she must finish in a great hurry. The general health has, however, I think, been much improved since a new part of the warehouse has been added, and some partitions in the old removed or cut down.

If the children leave work by 7 they are in time for school, but this is not often the case with the bonnet front room, in which most of the children work. If the elder people work, the children must, and this is usually till 8 and often till 9.

Annie Lawrence, age 13.—"Rolls," *i.e.*, turns a roller for pressing lace. It is very hard work if the lace is thick and wants a deal of pressing. Has rolled here for two years, doing other work sometimes, *i.e.*, "joining," *i.e.*, fastening pieces of lace together, and at another place before. It tires her more than it used to do. Feels very tired at night when she has rolled all day, and it makes her side ache sometimes. Never was very strong, but "there are a many weaker." Cannot breathe when she is not well, but that is only for a bit. Nine other girls, a little older than herself, "roll" and "join" in her room. Went out to lace drawing when 7. Often is not late for chapel for many weeks together; forfeits 1*d.* if she is, and a young woman 2*d.* The proper hour for leaving work is 6½; if they have tea it is 8. It was 8 nearly all the summer, and sometimes, but not often, 9, and two or three times only 10. Every body dines at 1, some here. Has 5*s.* set wages and 1*d.* a night for working till 8. Mother lets her have her overtime. Has been to a methodist school and chapel on Sunday for eight or nine years, except when mother is not well, and understands what she hears there. Went to a day school for three or four years, but did not like it because she wanted to come to work, so as to earn something. Mother is going to send her to the People's Hall (night school) in a week or two; she will have to pay 2*d.* Can read short words, write a little, and do some sorts of sums; multiplication and "that as you take away from one another." 17 from 20 is 15,—is 11, &c.

[Looks very delicate.]

Clara Smith, age 12.—Worked at "drawing" for mother before. Worked till 9 or 8½ in the evening or 5 (afternoon). "Guides out" from the gauffring machine. There are two other girls to "screw" and one "cuts off," and the woman gauffres. There are seven machines. Guiding out is the hottest; "you "are always sweating," except in winter. They cannot open the windows because the damp spoils the gauffre, and it would blow the steam into the "guider "out's" face. Used to "screw" and "cut off" also. Both are hot, and "make you sweat if you work at all "fast." The "makers up" scold if you don't, because they depend for their work upon the gauffring machine, and are paid by the piece. It makes her head ache sometimes. Staring at the bell which strikes when each length is to be cut makes you "dree," *i.e.*, "your "eyes seems funny." Her tea time, when they stay till 8, is from a quarter to 6 to a quarter past. Has been very "throng" (busy) since spring (it is October), and here most times till 8. Washes before she goes at night and the young women wash before dinner. Has set wages. Began at 1*s.* and has risen by sixpences to 3*s.*, with ¾*d.* an hour for overtime. Is paid Friday night. Mother gives her 1*d.* Has been to Sunday school for a year, but not regularly, and to three or four day schools, "old woman's," but mother thought they "were not for learning much." Says she can read (mistakes in spelling). Can write on a slate but not in a copy book. Did "little o's" but could not count them. Goes to a chapel. "They tell us to be "good girls and to pray to the Lord."

389

Lace Finishing.
Nottingham.
Mr. J. E. White.

Ada Cooke, age 9.—Has gone out to lace work for 2½ years, and worked before that at drawing for mother at home. Went first to a bonnet front place (Hill's), which was very hot. She went one day and came home with a sick headache for a week. Went back and had to leave in a few days again and go to bed. She had such a sick headache she could hardly stand. She was quite well before she went to this place. Then went to bonnet fronts at Marriott's. That was very hot, and she was often bad there ; but mother took her away because father said the place had such a bad name. Went to another place and then came here. Is often bad here, but not so often as at the other places. Goes for about a week and is ill. Does not eat much at any time. "Screws" here and finds it less hot. Has set wages, 2*s.* 6*d.* Saves 1*d.* or 1½*d.*, and "will be in the bank" when she has enough ; will like to be in it she thinks ; would like now. Goes regularly to school on Sunday, and to the Catholic church afterwards. Went to school three nights a week when she was 8, and to a day school for about two years when she was 5. Learned to sew and write on a slate. Knows her letters (hardly spells). "We "all read together at school."

Eliza Riley, age 14.—Goes errands, working at joining sometimes. Has been to Sunday school for three years. Says she can read (spells) and write.

[This girl looked much healthier than the others. The warehouse errand girls, as I have observed and heard remarked, generally have some healthy colour, which others who are never out seldom have.]

Sarah Savage, age 10.—Draws. A year and a half at lace work. Comes at 8 and goes to chapel till 8½. If late pays ½*d.* She and many others were late this morning. (It was during the great fair.) Dinner in the tea room from 1 to 2, and tea at 6½ now, and leaves at 8. Pays nothing for having her meals got ready. Earns by piece work 4*s.* all but a penny. Is paid on Friday evening by one of the gentlemen, and gives back any forfeits to the overlooker who is by to count the money. Was at a Church day school for 1½ years, and left to go to work. Since then has been to Sunday school and goes to a night school now. "Am a very bad reader." (Reads short words, spelling most.) Cannot write. Did "'dition," subtraction, and multiplication.

Harriet Bailey, age 11.—Did "drawing" for mother at home as long as she can remember. There were no other girls. Has a little sister of 5, but she is too young to draw. Is hardly ever late in the morning. Dinner like the others, and tea for her set at a quarter to 6 when they stay till 8, which they have done all this week, and do oftener than not. Gets from 3*s.* 7*d.* to 4*s.* 2*d.*, but does not put any in the savings' bank because "there are so many of us" (12 altogether, eight younger than herself) at home. Father is a stockener. Her "second mother is very "good." Was at a day school for some time and goes on Sunday. Can read the Bible and Testament, and has been taught "Thou shalt not do those things." Does not know of Africa or France or whether they are places. It is such a long while since she went to day school that she has forgotten about sums. She used to "spell synables" there. 3 times 10 is 30.

MESSRS. BARNETT, MALTBY, AND CO.'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

This is one of the large new warehouses, and provided with a dining kitchen, washing places, closets, &c., but the work rooms are close, and as it seems without ventilation. The full number in the clipping room is about 90, in the mending room about 50, though there were less at the time of my visit. There is also a dressing room, but only adults are employed in it.

Mr. Henry Conway Barnett.—I was brought up in the lace business. Ours is entirely a fancy lace of the best kind, which received a first class medal at the Paris Exhibition and another at the Exhibition of 1862. This requires much more labour than the plain, not only in the making but still more so in the finishing. The greater cost of finishing is often in the proportion of pounds to half crowns. The cost of this labour is becoming daily a more serious question in reference to the danger of competition from France. In making lace of the kind that we do we pay a man wages ranging from 2*l.* to 4*l.* a week, about double what a man usually receives for the same work in France. We pay clippers between 6*s.* and 10*s.* a week, or on the average about 8*s.* or 9*s.* This average does not include overtime. In France the same work is done for about 3*s.* 6*d.* for a week of about the same number of hours. I know this from my own inquiries in France or from people connected with the manufacture there. The difficulty of competing under these disadvantages is daily increasing, and the French trade is growing very rapidly. Any restrictions which would increase the cost of production would be very injurious, and might displace much business that is now done here. Still there are many advantages in retaining a manufacture in the seat where it is established, which are a check on the removal of work which would otherwise take place. But a bad time of trade here draws away business to France in those articles in which the French compete with us. It is the busy season alone, principally in spring, which enables us to make profits, and these scarcely compensate for the general flatness which is spread over the whole fancy trade. Any legislation restricting the labour, even of young persons only, beyond the usual hours at these seasons would prevent the manufacturer realising these profits. If the hours, were diminished the hands would still expect to get the same average amount of wages as before and would combine to enforce it. On looking at the wages paid in May last to one large set of hands I see that the average number of over hours was from 18 to 24 per week. The loss of this would be very serious. In our business there is a very large outlay for labour before any return is received, and the return can be received at all only by having the goods ready for sale at certain seasons, as the spring or autumn.

The houses whom we supply will not give us their orders until the fashions are known and the demand sets in, when only they begin to prepare for it. Still we must have a stock in hand to meet their demand when the time comes. The extent to which this can be done with safety depends upon the judgment, taste, and skill of the manufacturer.

Elizabeth Barry, age 17.—Has been here nearly 5 years, and is a mender, chiefly of black nets. "It "is very dree if you come to sit at it a many hours ;" makes you feel giddy when you get up from it, because you have to stoop over it so. Can see the work by gas light, because the gas is very strongly lighted. Sees black better than white by gaslight, because she passes the lace over her finger in mending, and if it is white it looks all white. Is in very poor health. Her heart is very bad, and gives her bad pain, from which she is not often free. But she suffers with headache more than anything else, and is hardly ever a day free from it, but she always keeps on at work. Was delicate as a child at home, but became more so after working here for towards a year. From 8 till 7 are the proper hours, but they come at 7 sometimes. Began to do so this year nearly as soon as they could see, about March, which was earlier than in other years. They left off coming at 7 just before the fair (October). But none are regular at coming early ; they come when they are able. They leave at 7, sometimes at 8, or 9, or 10. Has worked from 7 a.m. to

Lace Finishing. Nottingham. Mr. J. E. White.

10 p.m. for a week, and for a month together. All the rooms have the same times. They are busiest sometimes in winter, sometimes in summer. The room is hot in summer. But steam heat does not suit her, and the gas-light makes the room very hot and her head ache more. A many others complain of it making their heads ache, the elder ones as well. One who sits next to her suffers very much from her head and thinks it is from the steam. All hours beyond 7 p.m. count as overtime, but she cannot say what is the most she ever got for that, because her wages have been advanced. They are now 8*s.* 6*d.* Father is in the stamp office. Has left off Sunday school for two years. Practises herself in writing at home at times, and has been to a night school for it. Left weekday school when 10, and had been ever since she can remember. Reads and writes easily, and reads books for her pleasure. Did not like summing much.

[This witness is very pale, with weak voice.]

Elizabeth Fisher, age 17.—Has been at lace since she was 8 or 9. Clips here, generally black lace. Has to look very closely at it all day or she would cut and spoil it and have to pay for the mending. A number is put on the lace opposite to the piece which each clips. When you have less attention, as when you are tired, you cut it much more. Has very bad sight. At night when the gas has been lighted a bit, can hardly see at all. If she did not take her eyes off sometimes the work "would go all in a piece," and she would not be able to see and would cut it all in pieces. If she looks dree at her work in the daytime she cannot see any more than at night. But some are not so affected as she is. Thinks it depends on the strength of the eye. Her eyes have been bad for about four years She has clipped for seven. The black she is at now is more particular than other lace, because it is more expensive. The white seems more dazzling than the black by gas-light, but she hardly remembers having had a white piece here. Has been troubled very much with the headache, especially lately, and also with the tic. Thinks the headaches come from her having been knocked down by a horse eight years ago. Her back was not hurt. Scarcely a day passes but what she has her headache. The usual hours are from 8 till 7, but she has come at 7 for 6 weeks together. For the last half-year has come more at 8 than 7. All go at the same times. Last winter they came at 7 and worked till 10 for a week or so. Might or might not be busy when the menders were. Never stayed later than 10, and that is only for great orders. Gets what she earns, generally about 7*s.* or 8*s.* a week, but is not her own mistress. The overlooker engages and pays them.

Left Sunday school a year ago. Has not been to night school of late years, because she has to work and has no time. Cannot go if she leaves after work, but she could ask the overlooker to let her go. Left weekday school when about 8 or 9 of her own choice: mother said she might please herself. Can read pretty well, write a little, but not do much summing, though if she got into business she could reckon up.

Sarah Ann Chambers, age 12.—Has clipped here for four months, and for four years elsewhere. They sometimes come at 7 and stay till 8. The overlooker says when they are to give over. Dinner at 1, an hour; all go home. Tea at 5, half an hour. Some stay here for it; she does not. Earns generally 5*s.* by piece work, or in a very good week 6*s.* 9*d.* School twice on Sunday; three nights a week last winter; left week day school to go to work. Can spell (short words). Used to make A's on a slate. Never feels dazzled or sleepy at her work.

MESSRS. BRADBURY, CULLEN, AND FISHER'S LACE WAREHOUSE, BROADWAY, NOTTINGHAM.

This is a handsome new warehouse, the rooms heated by steam.

Mr. W. Bradbury.—I have been engaged as partner or otherwise in finishing silk lace, which (*i.e.* silk lace) is the sole business of our house, and the most variable branch of the trade, for upwards of 30 years. I have found the hours from 8 till 7, including an hour and a half for meals, long enough even for this business, except during perhaps about three months, when these hours may be exceeded by young persons and adults to an extent never exceeding two hours, but never at all by children.

From long experience I am convinced that long hours do not on the whole produce more work. After they have been continued for two or three weeks the people are unable to do in the long hours even as much as they did in the shorter. The usual warehouse hours were formerly 8 till 6, and are now 8 till 7, less meals. It would be unsuitable for the nature of the business and class of hands employed, many of whom are young women coming from a distance, perhaps of two or three miles, to begin earlier than 8 in the winter months, and for part of these we are fully employed, *i.e.* in ordinary years, though we are not this year. It is not desirable for the work itself that it should begin before daylight, and the young women from a distance, rather than come earlier, would probably seek some other employment, and we might lose some of our best hands. It must, I think, be supposed that the trade has found the hours which suit it best. If work ceased at 6, half an hour would be gained by giving up tea, and so only half an hour lost at this end, *i.e.* where the present hour is 7.

We do not care to have children under 13 at all. They do not work so carefully or well, though we pay them at the same rate as those above 13. They are taken generally out of consideration for their circumstances, or because they are known. But if they had to attend school we should not make any arrangement of double sets, &c., and should cease to keep them.

We have lately come under the Factory Act as lace makers, but have not found any inconvenience from it. But in lace finishing the great difficulty of legislation is that it would tend to discourage employment in warehouses where protection is not so much needed, as there must be a certain amount of careful supervision and regularity in them, and to throw it into the private houses where protection is much more needed, but which as seems to me legislation cannot effectually reach. A very large amount of lace finishing is done in these, and the hours are often very late. Within the last twelvemonths I have seen such houses at work till 11 and 12 p.m. I cannot say whether they were later.

The difficulty arising from work being of a kind which can be done in private houses is found in regard to the lace factories. The winding and threading may easily be, and I believe is, to some extent done in rooms in adjacent private houses.

The lace business altogether is quite of a special kind and very intricate. Still, as manufacturers, we are of opinion that some legislation, if framed upon equitable principles and tending to promote regularity, would be gladly accepted by the bulk of respectable manufacturers.

Mrs. Press.—Is overlooker in the top room, and has been employed in the service of the firm and its predecessors from a child, *i.e.* for 39 years. The greater part of the hands, except some taken in lately for a new kind of work (frame clipping), have been here from children, and as they grow older are put forward by merit. Believes most of these can read and write, though many of the younger who have lately come cannot. Would not like children of hers to go to a warehouse till 10 or 11 years old. Children often go out to work at 7 years of age. Mothers often bring their children to her and say they want a place for them, where they will not be so much confined, as at other places they have often had to go at 6 a.m, but they have not said how late they stayed. What they gene-

rally say is that their children have had "to work a many hours." From what she hears they are rather favoured in this warehouse, as she hears of so many being put together in a room in other places, which must be very bad. Is seldom put to any difficulty in getting hands, as this is such an old established house. Finds the lighting the gas makes a great difference in the heat.

Ellen Cresswell, age 13.—Frame clips. Has done so at two mistresses', and been at a warehouse also. At the mistresses' the hours were called from 8 o'clock to 8, but at one she has gone at 7 a.m. and stayed till 11 and 11½ p.m., and one night till 12. There were about six girls at each place, none much younger than herself, *i.e.* from 9 upwards, and all stayed when she did. At the other mistress's she never stayed later than 9 or 9½. Her hours here are 8 till 7, with an hour for dinner and half an hour for tea (1 and 5). Gets 5*s.* Has been to school on Sunday for some years, and to a week day school for half a year before she went out to work. Can read, but not very well. (Spells slowly.) Cannot write or sum. (Cannot read the number "28" in large print.)

[The overlooker said that this girl was slow. A quick worker at the same work could get 9*s.* or 10*s.*]

Elizabeth Levland, age 15.—Began lace work with her mother at 9 years old, and went to a mistress at 11. The hours there were 8 to 8, and if busy till 9; not always, but "off and on nights." Was at a small warehouse in Pilchergate with 20 girls, where the hours were 8 to 8; but she generally took work home with her for mother, and helped her. Can read a verse without stopping (reads badly). Goes to a night school now to learn to write.

Lace Finishing. Nottingham. Mr. J. E. White.

Elizabeth Bradley, age 13.—Went to a lace mistress at 7 years old. The regular hours were 8 to 8 or 9.

Emma Collier, age 12.—Went out to a lace mistress when "going" 6. When busy, which was often, and in two or three different seasons of the year, went at 6 a.m. and worked till 9 at night, but not later. Has done this for two or three weeks together. Was about 7 when she began to work these hours. There were eight girls, some about her own age, and all used to stay. At first had 1*s.* a week, after about a year 2*s.*

Harriet Craig, age 18.—Went to a lace mistress at 7 years old, and to another at 10. At the first place there were four girls, some younger than herself. At the second there were 10 girls, eight of them about 8 or 9 years old. At this place the hours were reckoned from 8 a.m. to 9 p.m., but they worked till 10 quite as often as till 9, and on Saturdays generally till 11, but not always. Does not remember staying later than 11. All the girls stayed. Has been to a Sunday school, but to no other. Cannot read, except just a few quite short words.

A. B.—I have been employed in lace finishing warehouses in Nottingham for 14 or 15 years, and for 10 or 11 as an overlooker. The overlooker possesses a good deal of power, as she generally engages, discharges, pays, and has the general management of, the women and girls in her department. She has also to keep the accounts.

For the last six years I was overlooker in a well conducted lace warehouse, having the charge of the whole 75 female hands employed there, the greater part of them girls from 15 to 20 or so, only a few being children.

At last my health entirely gave way from the long hours and hard work, and I had very unwillingly to give up my place. For a time I quite believed I was sinking, but rest is bringing me round.

In the busy seasons, viz., from February to the end of July, and again in September and October, and occasionally in winter, the hours of work were very long. The time was called from 8 to 7, and work never began before 8. But at those seasons they often worked till 9 for months together, and till 10 for weeks together. It has been as late as 12, but not later. There are, however, warehouses where they work all night still in busy times for pressing orders. I have been told by girls that it is so where they work.

But after the girls were gone I have often had to sit up for weeks together till 12, and at times as late as 2 to make up my books.

At these times, too, our meals were very irregular. We got them as we could. Those who lived near went home, those who did not ate them in the place. But we often waited for dinner till 2 or 3 or 4, instead of 1, and for tea till 7 or 8 or 9, or even till leaving later than that.

Lace work is very "dree," and causes a great deal of sick headache, and strains the eyes. At first the girls find it tire the eye very much, then they get used to it, but after some years, according to the difference of each person, most of them become shortsighted, often before 30 or 40.

The lace rooms are generally crowded, and the air is hot and unhealthy, especially in winter, when the gas has to be lighted as early as 3 or 4. The heating by steam, which is usual, is very disagreeable when it is put on hot, and heating by hot air is worse. I have known several who worked in rooms heated by hot air go off in a decline. When girls leave such rooms and go into a place only moderately warm they are so "nesh" (cold) that they shiver like leaves sometimes. Tic in the face is common amongst them.

But the most common complaint amongst lace warehouse girls is, I believe, fainting and hysterical fits.

Where I was last the rooms were ventilated, and were heated by open fires; but even there I have often seen the women and girls drop off their stools all in a moment in a faint. But the fits used to frighten me most; this happened chiefly at the clipping, which is very "dree" work and requires much bending over. I observed that it was almost entirely when they were working long hours.

In a very busy time there would sometimes be a week without any fainting, but on the average there would be six or seven in a week then. I am sure I do not overstate this. I have known a girl faint two or three times in a day, and be badly in the same way for a week. Sometimes they stayed away, and when they came back said that they had been badly. Consumption, which is very common amongst them, and other illnesses are, I believe, brought on in this way.

I have often heard complaints made of the long hours of warehouse work, and a wish that something should be done to stop it. This would be a benefit, as it would spread the work about more equally.

The high wages earned by these long hours do no good because they are so irregular. There is more drive in the business than there used to be, and a quick man who knows the business will make money very fast, but the workpeople suffer for it.

It is hardly possible for the girls to form any system of laying by money. They never know what they will have beforehand. If they have money to spare, they nearly all spend it in dress, but it too often happens that their earnings are gone beforehand, being wanted to pay for dress and even for their living, which they could not pay for when work was slack. At those times they are often in great distress. But at any time they will, as is commonly said here, starve their inside to make their outside smart. For growing girls in particular this is very bad. I used to tell the girls they ought to live within their means, and put by something for growing old. But it was no good.

I always put by money myself to start in a business. An overlooker's pay is regular. But only here and there one lace girl ever has anything to start with when she marries or settles.

There is a plan here of letting the girls have dress, &c., on trust to be paid for by weekly payments, which helps them to spend more on dress.

They have to sign their names, at least a girl told me she had, and get recommended or guaranteed by

Lace Finishing. Nottingham. Mr. J. E. White.

the overlooker or some responsible person. Sometimes the wages never come into the girls' hands at all, but are taken straight to the shop in the girls' names by the overlooker, who gets a commission from the shopkeeper. The girls then choose what they will have, unless the money be required for debts. This was done where I worked formerly, and I have been asked myself as overlooker to do it, but refused. Two shops are notorious in the town as having got a large business in this way. (A third large showy shop was named to me by another person.—J. E. W.) The chance of a good week or two coming to put them straight leads the girls to expend more than they can afford.

They rarely ever form regular habits, which is no wonder; and I have noticed that many, though smart, do not seem to have been taught at home to be clean and tidy, and I have had to find fault on this account. When they come to marry or start a business they do not know how to manage prudently, or to do household work, which they have always thought themselves above. So they often want help to clean the house or nurse a child, especially if, as is often the case, they are in weakly health from their former employment. Not one in a hundred is suited to be a good wife.

I think that one great reason why so many, young girls even, leave home and board two or three together, or with strangers, arises from parents' want of judgment in forcing them to housework when they come home tired late at night, and in thwarting them needlessly, and even sometimes thrashing them like children. Girls under me have complained of such treatment, but I told them they should never leave home.

What I have stated is only a specimen of what many others at different places could tell you if they would. I have spoken on the matter with two overlookers, but they are unwilling to make any statements, though if made they would give the same account of the hours of work, &c., as mine does, for fear of their becoming known and causing the loss of their places.

My business, which is just started, though not connected with lace, is partly dependent on the kindness of my late master, and might be injured by my giving my name, but I have been as careful in all that I have stated as if my name were given.

Mr. William Jarman, actuary and manager of the Savings Bank, Nottingham.—The deposits here are much the largest in the half year from November to May. The depositors are the pick of the labouring classes in the country as well as the town. Would say from his experience that but very few of them are of the warehouse girl class. Most of the young women who save are servants. Finds that some of the lace manufacturers who have started penny banks in their warehouses do not seem inclined to keep them on. During the last year the Savings' Bank closed 700 accounts, 350 of them under 5*l.* The amounts were small, because the depositors generally had not saved till late in life, and so when a bad time came the whole savings were quickly used up. Is of opinion that the plan of entirely closing factories, as manufacturers have taken to doing, has had a wonderful effect during the last five years in inducing men to save more, as they have seen others just in their own position who had some savings able to hold on without breaking till work began again.

[The books of the savings' bank for the last five years seem to confirm this statement as to the fact of few savings being made by the warehouse young women. In nearly all cases April, May, and June, the season when their highest earnings are usually made, showed smaller numbers of depositors than any other month, except perhaps November.]

Mrs. Reddish, Fletcher Gate, Nottingham.—Does lace work of any kind, pearling, drawing, &c., employing two or three girls in her house, and giving the greater part out to women. Her girls are between the ages of 11 and 16, and the hours from 8 o'clock to 7 or 8, and no later; but has had no work for five weeks, (from November,) and does not expect any till the end of January. Many years ago had from 20 to 30 girls between the ages of 10 and 16, and her regular hours of work then were from 6 a.m to 10 p.m. for the greater part of the year. Now only about three months are busy. For one year, as near as she can say, she, with two or three of her elder girls, sat up regularly the three first nights in the week every other week, but two young women who were with her would not stay beyond 11 or 12. They began at 12 o'clock on Sunday night, and did not lie down till Thursday night, and during this time only snatched their food. This pressure depended upon the nature of the business, which was foreign. The work had to be done and sent abroad, and the return received before there was money to start a fresh set of goods.

When she had girls many other mistresses had too, each on the average about 20 or 30 between the ages of 6 and 15. The hour for beginning work was called 7, and the children invariably worked till 10 p.m., and if busy till 12, the little girls as well as the elder. She has often seen the little ones coming home at that time. There are very many places still where little children are kept till 10 and 11 p.m. She hears mothers going along the street with their little one saying, "If you cannot "come home earlier you may tell your mistress that "you shall not go again;" and she also hears the children rushing shouting along the streets when they are let loose at these hours. (This witness lives in a street in the heart of the lace quarter, both of warehouses and private houses, and through which many such children would naturally pass.—J. E. W.) Many warehouses keep children in the same way, chiefly in the busy season, but also at times all through the year if orders are wanted. The mistresses used to be very cruel, but she does not know much about them now. There are, however, many more mistresses with smaller numbers now, and if children are ill treated at one place their mothers can take them away to another, which they could not do so easily formerly on account of the scarcity of places. But for the last two or three years the children have not been kept so much, as the trade has altered so, and there is so little to do.

She has lived six years in London and six in Manchester, and seen a good deal of different kinds of people, but she thinks there is no place where the children work so hard for the parents, and the parents live so much on their children doing little or nothing themselves, as here, though of course many parents are an exception to this, and are very industrious.

She entered a warehouse at 13, and has been employed in three altogether, in two of them as an overlooker. The usual hours were from 8 a.m. to 7 p.m., but in busy times till 10 and 11, and often till 12. It is three years since she left her last warehouse here, having come to it after an absence from Nottingham of many years. The hours were more regular, but girls and children stayed till 9 and 10 p.m.

Since she has had work given out to her she has often had a piece come in as late as 11 in the morning to be finished by 5 in the afternoon, so as to be sent off to London by 7 the same evening. In cases of this kind she has gone all day without tasting food from the morning till her work was done, however late. Of late the prices have sunk very much. For a piece of pearling, for which a year ago she got 1*d.*, she now gets only 5*d.* a dozen. There are now so many women here who cannot get work because such a large number of children are employed, and for what work these women do get the wages are sunk in proportion for the same reason. Besides this the money which goes to keep up the large warehouses now in use is taken from the wages which are paid.

Was in a lace warehouse in Manchester (Moseley

393

Lace Finishing.

Nottingham.

Mr. J. E. White.

Street) where they manufactured Honiton lace. There were 20 young women, but no children there. The hours were pretty regular, from 8 till 7, with an hour for dinner and half an hour for tea, which was taken in their room. This was then (12 years ago) the only lace warehouse there, and is, she believes, there still.

C. D.—Two years ago was overlooker in lace warehouse, and had been so for three years. Is now 25. There were never more than 40 employed, and of these about 30 were girls between the ages of 8 and 14 or 15 under herself, who worked at drawing. The children are younger in some warehouses. The children got from 2*s.* to 3*s.* 6*d.* a week. The proper hours of work were from 8 to 7, p.m. but they hardly ever left off at 7. The general time was 8 or 9, or sometimes 10. Never kept children under 12 later than 10; thought it was a shame. But if the work was not done the master would find fault with her unless she had asked beforehand not to be obliged to do it. Very many masters will not give leave so, because the work must be done in time. Once they were very busy, and she had to keep the children to 10 p.m. for nearly a week. Worked three days and two whole nights herself, never leaving the workroom from Wednesday morning till Friday night about 11 o'clock. Half the elder girls, *i.e.*, those over 12, stayed at work all through one night, and the other half all through the next. Had her meals brought to her, and ate them as she could at her work. As overlooker she had 2*d.* an hour extra, and the children would have less according to what they did (piece work) at their usual rate; but on the whole it made very little difference to the earnings. If you earned more you had to spend more on eating; and the children were so tired that they could not work well. When they worked overtime they did very little more work on the whole; they were unfitted for work. The parents used to complain and say so, and also said that on the whole it did not even pay the children more. There was an hour allowed for dinner and half an hour for tea, but about once a week the dinner would be only half an hour. The time that she worked the two nights through, and the others the one night each, she and they did so because they were told that if they did not there would be no more work till the new year. It was then a fortnight before Christmas. They did the work, but had no more.

[This witness gave me the name of the warehouse, but wished to have neither that nor her own mentioned.]

E. F.—I am overlooker in a room at Mr. Adam's in Stoney Street and have been so for six months. I have about 30 girls under me, all between the ages of 9 and 18. Since I have been there we have not left off work before 8 p.m. for more than a fortnight altogether. All the girls stay, the youngest as well as the elder, unless they are unwell.

At the end of the day they get very tired, especially the younger ones. I think that very little more work is done when they stay till 8 than if they left at half past 6.

The children are tired and restless and keep asking what the time is, and I find it very difficult to keep them steady and they cannot get on with their work.

The wages of the children under me average from 1*s.* 6*d.* upwards, a few getting 4*s.* or 5*s.* at the outside, including what they get for overtime.

The room next to us, across a low partition, work till 9 sometimes, sometimes two or three nights a week or a whole week. The girls there are about the same age as my girls.

Before I was at Mr. Adams's I was at another warehouse as overlooker for 20 years, and for about the last half of that time I had about 60 girls under me of about the same ages as those whom I have now. There we often had to work as late as 10 at night and come again at 6 in the morning to finish pressing orders. Sometimes we had to do that for a week together.

Sometimes I had to go at 7 a.m. and stay till 10 p.m. for three months together and to keep the children too. But at those times on my own responsibility I used to let quite the youngest, *i.e.*, those between 9 and 11, leave at about 8 o'clock and not come till 8 in the morning, and I used to make an allowance for those who lived a great distance.

When we were busy in this way I used to send out a few of the younger children to fetch the meals of the others, and the meals were eaten in the working room as quickly as could be, the work begun again directly. The smell of the dinners was very unpleasant, but it could not be helped, and I used to open the windows afterwards.

The children often used to like working overtime as their mothers would allow them this money. They often brought me this to save for them to buy clothes with or to spend on a holiday.

I hope that we shall never be forced to keep factory hours so as to have to begin at 6 in the morning. That is much too early for the warehouse work. It is quite different from the factory work and employs a better set of children. But it would be a very good thing to leave off at 6, as it would allow time for the many little jobs that must be done at home after work and now keep the girls up. But they are generally anxious to work overtime so as to earn more.

I like the Chapel Service in the morning and think it good, and that it will remain by the children when they grow older, even if they do not think so much of it now.

When I was at my former warehouse the mothers who asked for employment for their children used often to complain of the gauffring as being so very unhealthy, and that they would sooner keep their children at home than let them go to that. It was the heat, I believe, which was found injurious, but I never had any of it in my department.

I would sooner not have my name made known publicly, though I mention where I am.

G. H.—Was employed till quite lately as a youth in the sale room at Messrs. ———'s lace warehouse, in finishing, ticketing, and marking goods and getting down the orders (goods). Much of this had to be done after the girls had left. His regular hours were 8 till 7 p.m., but in busy times they were till 9, sometimes till 10 for three months together. Last spring he with some other youths and the pattern girls stayed all night three times, *i.e.*, they worked till about 3 a.m. and then lay down on the boards or anywhere and got up as usual for the next day's work. These three nights were not together. During this season he worked on the average, he should say, about 18 hours a day. Went at about 6½, got breakfast about 9, often had to wait till 2 or 3 for dinner because he was the youngest (about 17) and had to wait till the other youths had done. One day he was not allowed to go out to get anything to eat from breakfast time till he came home at about 12 at night. The girls had their meals more regularly. They came about 7 or 8, except those who came earlier to clean the rooms; but in the busy time a great number of them stayed on the average till 9 or 10 p.m., and now and then till 11 or from that to 12. The season before was not so severe. There was a more regular foreman then. But the last foreman often stayed away at the proper work time in the day, and would come in the evening to give orders which he might have given in the morning just as well, and if he had given them early the work might have been finished by 6 instead of having to be done after. Believes the master did not know of this. Had no extra pay for working over hours. Once had to go to the warehouse on Sunday morning to take goods to the railway station. He was quite done up by such hard work, and his father often went to the

Lace Finishing. Nottingham. Mr. J. E. White.

warehouse to complain of it, but it did no good. At last witness was very ill with the St. Vitus' dance and had to leave, and is still under treatment for it.

[This witness is still suffering visibly from the disease above named. The father stated that the account given above is entirely true so far as it can fall within his own knowledge, and that when he went to the foreman to complain he was told that such long hours should not be required for the future. He begged, however, that no name might be mentioned, as it might prevent his son from getting another place.]

Mrs. Wilson.—Began lace work at home at 7 years old, and went to a lace warehouse at 14. At one, a fancy lace warehouse, where she stayed for 12 years, the hours were called from 8 a.m. to 6, but in the busy six months they were from 8 a.m. or sometimes 7 till 9 or 10 p.m. Scarcely any one night for the whole six months was earlier. If it was they were later the next night, so that the average was always till 9 or 10, and on some nights, especially Saturday nights, they stayed till 11 or 12. There were only about six Saturday nights in the busy half year in which they did not. After that they had to stay to put by things, so that sometimes they did not get home till 1 on Sunday morning. The reason was that the order had to be ready for the London market on the Monday morning. On those days they did not think of stopping for tea, though occasionally they got a cup brought to them, but she had her dinner hour regular unless she chose to put it off to finish some particular work for her master. There were not more than eight young women with herself. Her master was one of the kindest in the town in giving holidays and other ways. At the two other lace warehouses where she was her hours were of just the same kind, and varied in the same way. Never worked all night in a warehouse, though to her knowledge many have done so. A young woman earning 8*s.*, or at the outside 9*s.* a week by regular work, would get 2*d.* an hour for overtime. Has seen the girls faint in the work rooms, but not on the Saturday nights. It was from their constitution or the heat of the rooms. It is the steam pipes with which the rooms are heated that do the most injury.

After she left the warehouses she employed women and girls on her own account, and has had to keep them up four nights in a week, letting those who were young or not strong go earlier. Putting all the nights together it came to one month out of the six, or one night a week on the average. Has begun again at 12½ on Sunday night, but this was in a very busy season. In others there was not occasion for so much work.

If she had not worked in this way she would have lost her employment. The orders must be done by the time fixed. Has many times had an order sent in in the evening to be done by the next morning, and so large that it was clear that it could not be done unless by the work being done all night. It was the foreign houses that were the most dangerous for work of this kind.

Thinks, however, that there has not been much work of this sort for the last few years, as trade has fallen off so, but is sure that if trade were again as good as it was the work would be done in just the same way unless there is a law passed to stop it, and it would be much better for every one if there were such a law. If she had her way no one should work after 7. The long hours are no good to any one. Formerly trade was much more regular, and there were six or eight busy months. For the last five or six years there have been only three or at the outside four busy months, from about March to July. Thinks this has been caused by the trade being over done by every one rushing into it whether they had means or not, and now the trade is suffering from it.

Miss Meet's, Hospital, Carrington Street, Nottingham.—Does drawing, clipping and scolloping, joining, and other lace work. Usually employs about 12 girls between the ages of 14 and 20, but has none here now, there being no work. The hours are called from 8 a.m. to 7, with an hour for dinner at 1, and half an hour for tea at 5. Some breakfast here if they please, but the hours are according to the work, and if it comes it must be done, though she lets the young ones go when tired. Formerly employed some girls of from 7 years to 10 as learners, and has had, with elder girls, as many as 20 in a room.

Was superintendent in a lace warehouse for 15 years, and had a good master. But the work, with the hurrying about up and down stairs, and with the anxiety, was so great that it affected "the nerves of "her brain," and she has never had her hearing right since. (Hears with difficulty.) It was at the same warehouse where her sister (last witness) worked for 12 years, and her hours were the same or slightly longer, but not worth mentioning. What made the work so late on Saturday nights was that, though perhaps they had not been doing much in the day, they had to wait for the pieces coming in from the tambourers, and to finish and make them up to get them ready to be sent off so as to be in London early on Monday.

Since she has been at work for herself she has sat up at times four nights a week, and had others up with her. Her house (private) was not the same as her sisters. Has often had pieces for clipping, shawls for grafting, pearling, &c. given out to her at 8 o'clock on Saturday to be done by the first thing on Monday morning, as much as two or three days' work for all the hands that she kept. She must do it on pain of losing work for the future. If it was more than she could possibly do, she has had to run about to get people to take it, and has frequently paid more to get it done so than she has received for it from her employer. And she has lost work from not being able to finish a piece in time.

Once when she had some difficult work out in which no one could help her, she worked for 11 months at an average of 18 hours a day, and kept her health all the time. She would gladly do it again if she could get the chance. But now hardly anything is to be got. When there is work, it comes so irregularly that you never can tell when it will be; whether you will have any at all, or a fortnight's work in a week. This wears the people out and makes them old before their time. The work used to be much more regular, and she would like to live to see the day when it could be so again. But the Nottingham girls will do any amount of work, and endure anything. Most of them will half pine themselves for their clothes. They are so fond of dress.

MR. JAMES SCOTT'S LACE WAREHOUSE, CASTLEGATE, NOTTINGHAM.

This is merely a house, a small number of hands working in two small rooms, finishing silk edgings.

Mr. James Scott.—Gives three-quarters of his work, viz., all the drawing, out to women, who employ children on it or give it out to other women. Has so little occasion for any hands under 18, that any regulation of their labour would make but very little difference. A jennier may sometimes happen to be under 18, but not much. The only child employed here helps an adult at what is commonly done by adults themselves. Usually employs about 12 hands; has now only eight. In busy times gets more and can always find them, though not always good enough for the work. The time given for orders,

especially by London houses, is usually too short to allow of the work being done in the regular hours. Often a part of the day is unoccupied, there not having been sufficient notice to allow of getting the drawing done for the hands inside to go on with, and they have to go on into the night. This may be till 11, but that is very late and he objects to it, and the hands have to be excused next morning.

Mary Snowden.—Is lately come here from London, and is learning jennying. Is 23. In London worked at Usher's, Goswell Road, a bonnet front maker. It was a private house with two work rooms. There were about 40 women and girls altogether, the youngest about 10, and about 14 under 14. There were three gauffring machines, which the youngest children turned by hand, and there were six double making-up machines, equal to 12. "It was indeed "hot" with the gas burning in the machines all day. She worked at "running on" in a room with five girls, and with no machines, but she felt the heat when she went into the machine room, and the others complained very much of it and had head aches. Believes the work is very injurious to health.

Martha Price.—Is a jennier. The hours are 8 till 7. If they are busy they make it up most in the evening; seldom in the morning. Has not stayed later than 10 p.m. Has not till 11 (*see* Mr. Scott's statement) since she has been here.

[Here this witness was interrupted by the next, a woman beside her, as below.]

Phebe Merrin.—Has been at work half the night. Has worked all through the night sometimes, and gone on regularly with work the next morning, but not more than one night at a time. So did the other jenniers. Remembers doing so once this year and twice last. Has been here two or three years.

Mary Asher, age 10.—Hours are from 8 a.m. to 7, with an hour for dinner at 1, and half an hour for tea at 5. Went to Sunday school regularly and to a day and a night school for a year each. That was at her home at Newark. She came from there nine months ago to do lacework here, and lives with a married sister. Can read (does so fairly), write in a copy book, and do "money sums."

[On referring the statement of work having been carried on through whole nights to Mr. Scott, he admitted that it had been so, and stated that the reason for allowing late work was that the old hands did not like new ones being taken on to help, and that he did not like having to engage any for a time only and then to turn them adrift.]

MR. JOHN BURTON'S, LACE FINISHER, DELIGNE STREET, NEW RADFORD, NOTTINGHAM.

In one room here, 27 feet long, 12 wide, and barely 8 high, were 30 persons, chiefly young girls. Four of the elder girls belonged to the room below, but were working in this. A room below of the same size was somewhat less crowded. All the above are lace drawers, others are at work in other ways below this.

A dining room was provided here, but given up because so much noise was made in it. Having occasion to call at this place a second time, I felt the top or crowded room much hotter than before, and my thermometer rose to 73°, and afterwards when the windows were opened stood at 70°. This was in consequence of a steam pipe lately put along the middle of the room two or three inches from the floor. Before this the girls had complained very much of cold, and said that they had to run down to warm themselves. The girls were sitting on low stools, some of them almost over the pipe, which was very hot. The master had no idea of the heat himself and seemed glad to have it noticed, and proposed getting a thermometer to regulate the steam by.

Mr. John Burton.—I am a finisher of fancy lace, and also a maker, but not on the same premises. As a general rule I strongly approve of Factory Acts, and only wish they had applied to lace making 30 years ago. It would have saved me and others a great deal of hard night work.

Some makers who did not prepare for the new Lace Act, as I had done by getting a second set of bobbins and some new carriages, now get their winding done outside their factories so as to be free from the restrictions of the Act in that respect.

But I have given up the only two hands which I had under 13 in order to avoid the trouble which the Act required as regarded them, and though I now have to pay higher wages for elder hands they answer my purpose quite as well.

But as to lace finishing the case is different. If it were under any like regulations, I could get as much work done for the present wages; more perhaps, as I could then get a longer day, viz., from 6 to 6 instead of from 8 to 7, as at present. But I should oppose any such regulations. I do not think there is need for them in lace finishing as there was in the factories, and they would give trouble, and I think create much opposition.

Besides it does not answer to finish lace till an order is given. A stock may be kept very well "in the brown," *i.e.* just as it comes from the machine, but if it is dressed and finished it soon loses gloss and colour and then will not sell. In fact it becomes a perishable article. Lace is a thing which people can and will do without unless they can have it just when and as they please, according to their own wants and the fashions, which are always changing.

There ought to be the power of working longer hours to meet sudden orders. I could however always get more hands if I wanted them.

Louisa Kirk, age 10.—Has been at work 8 months. Comes at 8½ in winter, 8 in summer. Leaves at 7. Does not stay later. Only the elder ones in the lower room do.

Dinner at 1, an hour. Tea at 4½, half an hour. All go home for both. Always has as much time for meals. Tea is sometimes a little earlier or later according to the work.

Gets what she earns, *i.e.* from 1*s.* 5*d.* to 2*s.* a week.

Goes to school once every Sunday. Went to a night school for two winters, but does not go now. Went to a week day school from when she was 6 till she came here. Can spell a little. (Does.) "Used to could" write "man." Never tried any sums.

Caroline Rapplington, age 13.—At work 6 months. Is in the elder girls' room. Hours of work are from 8½ in winter and 8 in summer till 7½. Sometimes till 8½, or 9½, or 10. Dinner and tea at the same time as the younger girls. All go home for them. The lower room has set wages, so they are more particular to time. Gets 5*s.* 6*d.* a week. Goes to school twice each Sunday. Never was at a night school, or a week day school. Can read but very little. Not write at all, or sum. Has not heard of the "ocean." India is where "the blacks" are.

ace Finishing.
Nottingham.
Ir. J. E. White.

MESSRS. SYLVESTER AND HILL'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

This is merely a dwelling house approached by a narrow passage. The work rooms are small and with no more window or ventilation than usual in the bed rooms of a town house so placed. In a very small narrow attic, only just large enough to hold the two clipping frames filled by girls on each side, leaving a narrow passage in the middle, were 18 girls and their overlooker. Two girls, away at the time of visit, usually work there also, making in all 21 persons. The roof slopes very steeply to within about 2 feet of the floor on each side, the door being at one end and a small window at the other. The space allowed to each person is unusually small. There is no fireplace or warming apparatus, but in the lower rooms, where the elder girls and women work, there are the usual bed-room fireplaces. Another attic somewhat larger was empty.

Kate Gregorie, age 7.—Clips in the attic. Her hours are from 8 to 8 and 9, not later. Leaves at 8 when there is not much to do. Is lately come. Dinner at 1, an hour. Tea at 5, half an hour. Goes home for both. Has 2*s.* set wages. Goes to school every Sunday, but never to a night school. Went to a day school when she was very little, but left at 6 years old to go to a lace mistress (Howard). Says she cannot read. (Reads words of two or three letters). Cannot write or sum.

[This girl has a cough.]

Ellen Beagles, age 14.—Clips in the attic. The hours are from 8 till 7, but sometimes till 9 or 10, and were once till 11. Has stayed till 9 or 10 for a month or two together, and so have the other girls except two or three of the youngest who go at 8. Has set wages 4*s.* 6*d.* a week, and 1*d.* an hour for overtime. Has got 6*s.* (*i.e.*, 18 hours overtime). Goes to Sunday school sometimes, but mother does not like her to go unless she looks clean. Went for one or two winters to St. Peter's night school and to the day school when she was "a little one," but left when 7. Knows a few letters (capitals). Never wrote, but tried some sums at school, but has forgotten them now.

Has not very good eyesight. When she looks at her work "dree" her eyes begin to run, and by gas-light they hurt. The "little clips" (small patterns) are the worst. Has pains in her forehead in summer at her work. It is very hot here then. Some get "giddy." It comes over you all at once. Has not seen any of the girls faint. In cold weather it is very cold, as there is no fire or steam, but there was a carpet then to keep their feet warm. She came two months after Christmas. Has bad throats and can hardly swallow. Has one coming on now.

MR. WM. HY. MORRISON'S LACE MANUFACTORY, CASTLEGATE, NOTTINGHAM.

A sufficient account of the business carried on here (bonnet-front making) is given in Mr. Morrison's own statement.

Mr. William Henry Morrison.—Is the inventor of the machines now in general use for "making-up" bonnet fronts, and has been engaged in the manufacture of bonnet fronts for many years. The manufacture is about 20 years old, but has grown to any extent only since the introduction of his making-up machine four or five years ago, since which date it has increased probably 50 fold.

The present endless chain gauffring machines were invented as much as 15 years ago, before which time a machine like a crimping board was used. One gauffring machine will supply two, or if well managed, three making-up machines. All are heated by gas and much in the same way, *i.e.*, by a row of gas jets beneath the machine; but by introducing air into the gas tube less gas is consumed, and there is less smell, though the air around seems to be made more dry and greater heat can be produced. This plan, however, is rarely adopted.

There is another mode in use,* chiefly in London, where a metal box is used instead of the common making-up machine, and the gas is applied from above. Consequently the consumption and waste is much greater and the air more impure, and this must be still more so where, as he has seen, the jets of gas run nearly all round a large room. A room with gauffring machines in it feels much hotter and smells much worse than a room with only making-up machines in it. There is generally more space in a making-up room, as several processes must be carried on with it. The gauffring requires only the "spoling" and measuring, sometimes done in one process. To any one not used to it, it is almost intolerable. Has tried to have his own rooms kept cooler and ventilators used, but the people say they do not like it, and invariably shut the ventilators up. Would have thought the work must be much more unhealthy than it seems, and finds that the branch of the work which would be supposed likely to be most unhealthy, viz., gauffring, seems least so from his experience. Most of those who work in his gauffring room have remarkably good appetites, and two girls who had been in very bad health before they came here improved considerably on going into it. One had been given over by the doctor as incurably consumptive, but she is now much stronger and is at work, seldom having to leave it, though at first she rarely could stay more than a couple of days at a time at work. Possibly the great dryness of the air may suit her. But he never found any one, unless they were very strong, able to stand working at a making-up machine for any length of time. Many have knocked up at it. Has had one or two, however, who have stayed on with him for four years or more at making-up without any bad effect. Children seem to suffer less from it than might be expected. This may be from their changing their part of the work or their place so often. Of three young women who have died since leaving here, two did not work at the machines at all, and the third who did died of an abscess, which may have been hastened, but which the doctor said was not originally caused, by her working the treadle of the making-up machine with her foot.

There is now nearly as much bonnet front making in London as in Nottingham, and it is carried on to some, though not a large, extent in other large towns in most cases as the sole business of the establishment, but in some together with other work, as in a warehouse. As near as he can say, the following is an account of the other places in which machines are used:—In Manchester, in about a dozen houses; Liverpool, in one, small; Bristol, in one or more, middling; Newcastle, in two, quite small; Glasgow, in one, large; Dublin, in three or four, middling; in Belfast, in one small. There were some in Birmingham, but are not now.

The business is entirely one of season, from about March to June. If it lasts over four months it is good. It would be hard if any restrictions on the labour of the young on which that of the older necessarily depends, put a check upon the profits at the only

* From inquiries which I have since made in London it appears that this method is no longer in use.

Lace Finishing.
Nottingham.
Mr. J. E. White.

season in which they can be made, unless they could make up for this in some other way. If they really had the effect of only spreading the same amount of work over a longer time it would be for the benefit of all. If the hours allowed were not enough to produce the quantity of work required quickly enough, it would probably lead to an actual diminution of the business as now carried on by machines, and bonnet fronts would be more made by hand by milliners as formerly. But if this were so, it would withdraw much of the present amount of competition from the business, and enable those who continued in it to demand a better price, as customers could not be supplied so easily. There is no fear that bonnet fronts could ever be supplied from a foreign market, as being from their nature so light, and taking so much room, their freight is always charged by bulk, and is therefore so heavy as not to allow of their importation. The cost of production alone, excluding the value of the material, is so small that the difference could never make up for the freight. Lace in some other forms is charged by weight.

Long hours are very undesirable, and they are in some cases carried far beyond what is good for children. In summer, when his proper hours are from 8 till 7, they are never carried beyond 9, or sometimes 10. The frequency of this depends entirely on the season. In a good season it might be nearly through the whole of it, in a bad seldom, but the children scarcely ever stay after 9, and there is never overtime more than four nights a week, his hands always having two nights, usually Monday and Saturday evenings, free.

Believes that in private houses children are often worked very hard by women at very low wages. Mothers have brought their children to him begging him to take them, saying that they had been at work at drawing or scolloping at a mistress's for out-of-the way hours, naming even as late as 12, and that they have brought back at the week's end only 1*s.* 9*d.* or so. This may perhaps be exaggeration to induce him to take them.

Believes children are also employed sometimes, though not in any numbers, in the houses of people who make and finish lace edgings, the man working the machine, and his family doing the finishing, one of them taking it about to sell, and, in poor times, almost for nothing.

Sarah Parnell, age 13.—Came here in June last from Sanders and Francis's, bonnet front makers, Stoney Street, to which she went at the Christmas before. There were from 240 to 260 women and girls, besides about a dozen men. The youngest girls were about 10 years old, and about half of the whole number were childen, *i.e.* under 15. In one large room were either five or six gauffring machines, and 30 making-up machines, the latter heated by steam pipes, and standing some of them very close together. In this room were about 150 people altogether. In another room were six making-up machines of the same kind. (These are not of the new common kind.) The room (which has only been built a few years, 7 or 8,) was large and high, but very dirty at top. It was "very hot," much hotter than the gauffring room here usually.

Could hardly stand it, it was so hot. There was hardly a day passed but what some one fainted. Sometimes three fainted in a day. It was chiefly those at the making up machines, and generally of as much as 20 years of age. Some girls younger than witness worked these machines. There were two or three who fainted nearly every day, and about five who were very much given to doing so. L—— P—— fainted every day about, but that was not in the hot room. Besides these there were others who fainted at odd times. All, women and girls both, complained of the heat very much. When they were working late at night they could hardly work in the room, it was so hot. Used to be very tired, and have the sick headache. A "very great many" had it. Some often had to go away from work and came back either the same day or the next. A dozen have gone away in a day; not more. If they went, 1*d.* an hour was taken off for the young ones, and 2*d.* or more for the elder, at the same rate as they were paid for overtime. Was never a fortnight without having to go away herself, sometimes not a week. Has to go away nearly as often still from here. Has had that cough (a bad one) about a month. It hurts her side very bad. Has had bad colds before, but not to hurt her as this one. Has not had anything for it. Has a mother, but she cannot pay for medicine for her. Has not been to the dispensary. Her sister is very ill, and has a dreadful cough. Witness caught very bad colds at Sanders and Francis', especially when she was in the hot room, by going out of it. Two or three of the children caught dreadful colds so. Thinks it is the colds that made her so bad chiefly. After she had been two months in the hot room she went to a different work, "spotting falls" with blocks, in another down stairs. That was very cold, and though there was a round stove in it, it was hardly ever heated, and that not unless they asked. It was cold winter weather when she was in that. Some of those who worked the machines in the large room had very bad eyes and could hardly see to work. (See statement of Mr. Clayton, at Wills's.) The proper hours were from 8 till 6½; but when she went at Christmas they were busy, and she went at 7 or 6, and stayed till 9 p.m. Stayed till 9 the greatest part of the time that she was there, in both rooms alike. Has stayed till 10 sometimes, but does not think she has stayed later. Went at 7 or 6 a.m. in summer, too, sometimes, and stayed till 9 or 10 p.m. Just before she left was going at 8 a.m. and staying till 9 or 10 p.m. Has stayed till 9 for a week and a half together, but not going at 6 or 7 every day. Had 3*s.* 6*d.* a week set wages, and 1*d.* an hour for overtime. Does not remember having more than 14 hours' overtime, but she was often away, and hours were taken off if they came late. Five minutes were allowed, but if they came six minutes late an hour was taken; if an hour late, two hours. Some came at 9, and a few at 9½. When they had been late at nights many came late; the most was a dozen the same day. There was an hour for dinner at 1, to which she always went home. No children were allowed to stay, but a great many others "worked their dinner hour," having their dinner at work; but only the gauffrers, makers up, and measurers. Was at another warehouse before, and at three or four mistresses', where there were only a few girls, 6 or 12. At all these the regular hours from 8 till 7, and she thinks the latest was 9. At one they worked in a bedroom, with a bed in it, in which some one slept. Her health is not much better here than at Sanders and Francis', and she has not been in good health ever since she went out to work. When she was at home she was much better, though not a strong girl.

[This girl has what seems a settled cough, and looks weak in the chest. Mr. Morrison stated that he had himself noticed the effect upon the eyes spoken of above immediately on putting his head over a machine. On going again to the gauffring room, which she speaks of as much less hot than her last place of work, I found it much cooler than when I was in it a day or two before, and it was said by the master and overlooker to be much cooler than usual, owing no doubt to the window being wide open. Still my thermometer rose to 70°, at a distance from any gas.]

Alice Rawson.—Has been here half a year, and just before that was at Sanders and Francis' (same as last witness's place) for half a year. Thinks the numbers amounted nearly to 300 in all. At first worked a making-up machine, heated by steam, but that was "too "heavy" for her, means did not suit, her constitution,

Lace Finishing. Nottingham. Mr. J. E. White.

so she went to measuring. It was very hot from the steam. Often had to leave her work and go home. Had headaches, but that "has nothing to do with the "heat;" she is subject to them. "A lady has head-"aches." It was of course warm in summer, but she had sooner do hot work than cold. Use is a second nature, and she would like to be hotter than she is here. The regular time to go to work was 8, but when they were busy it was 6 or 7. They stayed till 9 and 10 or 8. They are obliged to work when they can get an order, or they should not have it. At Christmas, just before the holiday, they stayed till 12 one night. The overlooker let those who wanted, and whom she could spare, which were more than half, go earlier. Some of all ages stayed. They "cannot do without the little ones." They (the children) are very hard to drive home, because if they have a father they get their overtime money for themselves, and it is the only money that they do get so. Has stayed two or three weeks together till 9, but cannot say that she has stayed for a week till 10. They might go home one night earlier if they asked. The makers up could go if they pleased, but the measurers had to stay longer. Has made 25 hours a week overtime there at the most, and often over 20; she cannot say how often. But only a very few made so much, not any of the little ones; none under 17 or 18. She is always anxious to work, and wishes she could get as much overtime now.

[The answers as to health, hours of work, &c. were got from this witness with great difficulty, and in a tone of opposition, possibly from a fear of their leading to a loss of long work hours. She is nevertheless very delicate looking, and is the young woman (she is 20) spoken of by Mr. Morrison above as having somewhat improved in health since being with him, and as having been before given up by the doctor as incurably consumptive.]

Mary Ann Wafflington, age 14.—Here three years, and has gauffred for six months. It is very hot, but she does not have headaches much, and can always eat very well. Her hours are 8 till 7 in summer, and 8½ till 7½ in winter. Overtime is till 9 or 10, but seldom the latter. It happens during three or four months in summer, and occasionally before Christmas. Goes home to dinner at 1 for an hour. Only one girl stays for hers, and has it in the lower (making-up machine) room. All of them but one, who goes home, have tea in their work rooms here at 4½; half an hour allowed. Has been at Sunday school ever since she can remember; to night school now and for the two last winters; was at a week day school from before she was 6 till she left to come here. Can read, "not well." (Reads unevenly.) Can write a letter on paper. Used to do sums at school, but only remembers the tables. Eighteen ounces make a pound, and four half crowns a pound of money (afterwards corrects this to eight half crowns). Has heard talk of America, but cannot say what it is. (Does, when asked if it is a place.)

MR. E. R. DANN'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

Some of the work rooms here are reached through a back yard and an untidy passage and lumber room. On entering one room I noticed such a strong smell of burning gas that I thought there must be bonnet front machines in it, but found afterwards that they were not here, but in a room below, communicating only by ladder stairs. In one room were 12 making up machines. These are heated by gas, like the gauffring machines, and are each worked by two girls, the elder 17 or 18, the younger from 11 upwards. In the gauffring room are five machines. Each of these requires three girls; a big girl to "turn out," a young one to "put in," another to "cut off." One of the arrangements here is good. Much of the bonnet front work which does not require the use of the machines is done in a separate room, instead of, as is often the case, in the same rooms. This exposes as few as possible to the immediate presence of the gas, though in this case, as I have noticed, the heat and smell ascended to this from another room.

Mr. Dann.—Is strongly in favour of any measure which would protect young children from excessive labour, and would be glad of a further limitation of hours for young persons if the same for all employers. He or any one else could get through all that was wanted between 6 and 6. If the orders, in consequence, were given earlier, and the work done more uniformly, it would be more profitable for the business, and much better for the health of those employed. It is, however, very difficult to get more hands in the busy time if wanted, and through the summer he was set fast, *i.e.*, for finishing lace. For making it he can always get plenty of hands, probably because that requires only a third or fourth part of the number. Considers it certain that any restrictions on labour in warehouses would drive the work into private houses, where the children are less comfortable, and in the hands of mistresses who work them very hardly. A great evil in the business is that there is no regularity of employment, but the girls change about as they please, as they are taken at most places without any character. Believes that as a class they do not save money. The fluctuation of their work prevents it, and the character of the work itself gives them a taste for dress. They sometimes buy dress beforehand by discount, and there are shops that do this business. Is speaking on these questions of labour not with regard to interest but from conviction, having thought on these points for many years.

Sarah Ann Mullens, age 15.—At lace work seven years; two here. Comes from 7½ till 7, or from 8½ in winter. If she comes at 7 she has breakfast first. When they are busiest in summer they leave at 9 or 10 p.m., not later, and not always at the same time. Goes home to dinner and tea; at 1, an hour, and 5, half an hour, unless it is wet. Most stay in the rooms for their tea. Has set wages, 7*s.*, and 2*d.* an hour for overtime. Has made 4*s.* 6*d.* overtime, *i.e.*, 27 hours in a week, and sometimes 20, but not often. Has been to Sunday school for 10 years, and chapel also, but lately has not been well enough. Was at a day school for about a year altogether at different times. Can read the Bible and Testament and such like, and write her name, but "would not like it to be seen "anywhere." Could sum a little, but forgets it now. Went to the People's Hall for a night or two to learn reading and writing, but could not see, so had to give it up. Her sight has been better lately because she is not at such dree work. Her eyes only hurt sometimes. Could not see to thread a needle at night. Has been out of health for four years. She was working at carrying heavy loads backwards and forwards from a warehouse (hosiery). It heated her so that she caught cold and got inflammation of the lungs. Cannot get her breath, but it bothers her most when she has a cold. Every little thing gives her cold. Used to "turn out" at gauffring, but it "made me sweat" and feel so bad, that she had to give it up and now only "cuts off," which is not so hot (is further from the machine). Is "turning out" to day because the girl, whose place it is, is away. Had very bad sick headaches at "turning out," and had to go home for a day or two every few weeks. Went to the dispensary. Can eat now.

[This girl looked wretchedly ill and unable to hold herself upright. I was told that every allowance was made by her employers on account of her health.]

Lace Finishing.
Nottingham.
Mr. J. E. White.

Rose Millard, age 14.—Here six years; and for nine months before at the overlooker's house at lace work. Clips and scollops now. The proper hours are from 8 to 6.20, but are sometimes till 8, and 9, and 10, but not ever later than that. For three months last year came at 7, having breakfasted first, and stayed till 9 p.m. The busy time is about the same each year. Dinner at 1; an hour. If they are busy it may be 1½ or 2, but never later. All go home. Tea at five; half an hour. Some stay in the rooms for it. Gets about 5*s.* 6*d.* a week. When busiest gets 7*s.* 6*d.* or 8*s.* Has good sight always. Likes black work best, and believes the others all do. Some of the girls' eyes get tired. Has been at Sunday school many years; at a night school for three winters, but never at a day school. Can read any book, write a little, plain but bad, and do multiplication. Has good health now, but for two years was very bad when she worked at bonnet fronts at doubling and cutting the bands with the machine. It was not hard work, but the gas did not agree with her, she thinks. She could not eat anything all those two years, but she did not have headache much. She went to the doctor and gave up the bonnet front work at the same time, and since then she has been able to eat.

MESSRS. W. MARRIOTT AND CO.'S LACE WAREHOUSE, ST. MARY'S GATE, NOTTINGHAM.

The bonnet front department here occupies two fair-sized rooms and a narrow passage room between. Great improvements have been made in raising the roof of one room, which was very low, and providing ventilation in the passage room. Before this the heat was said by the owner to be very great in summer, and so it was spoken of by the girls, and this must have been so if all the machines were at work, as they are very numerous.

The five gauffring machines which stand along one side of the passage till lately were, as is usual, turned by girls by hand, but though the force needed is so slight as not to be beyond the strength of a child, steam power has lately been applied, which will enable one person to attend to a machine by herself, as well as perform the work at far greater speed. An improvement has also been made by introducing a stream of air upon the gas, which produces sufficient heat with a far less amount of gas; not only a saving in money but less injurious to health. Still the heat from these and a number of jets of steam opposite to the machines which are used to moisten the lace before being put in, is considerable. Besides these there are in the two other rooms 29 (or 30) trapping and making-up machines, all heated by gas apparently on the common plan, though nearly half of these were put aside idle; but if all were in use together there would be only just room for them, so that, according to the calculation already made, the amount of heat and bad air must be great. But at the time of my visit, a morning when so many were not in use, and with the late improvements, there was nothing oppressive. There is hot and cold water provided, washing places, closets, and a spare room where those who like can eat their dinner, as I saw some doing as I left, though without tables, &c.

Mr. W. Marriott.—Would find it pay better to have only girls over 13 than any double sets under that age for half days, but double sets on alternate days would suit very well. If girls under 18 could not stay after 6 it would make no difference, as it would answer the purpose as well to come at 6, which would give as much time as is wanted. There is no profit in the long run in hours longer than that, because you cannot get more than a certain amount of work out of people. Beyond that the girls work without spirit, and you lose more than you gain, though he has on occasion been obliged to work longer hours. If he is busy the hands come at 6 and leave rather earlier at the other end. Of late has had to execute orders in less time than formerly, because there is so much competition, and the work can always be sent elsewhere, and if so he might lose not only an order but the connexion, unless he can execute it in the time required.

Cordelia Tattersall, age 14.—Has worked here two years at different parts of the bonnet front work, and for 2½ years at two other bonnet front places (Bilbie's, St. Mary Gate, and Bailey's, in the same street). At each there were two gauffring machines, but one did several pieces at a time, and so supplied many making-up machines. It is very hot here in the summer. Steaming (holding the lace in the steam) is very hot, but gauffring is hotter because it is "always one heat." It is always hot work here as at other places. In summer it makes her feel moist, but she has always "stood it pretty well." Some "odd "ones" who were delicate have felt poorly from the heat and had to go home, but they got well if they were away an hour or two. Seldom has headache or feels sickly. Hours are 8 till 7½, and on Saturday till 4½. Last winter for two or three months they came at 6 and 7 and worked till 8 or 8½, but does not remember staying till 9. (Asked further.) Has stayed "odd nights" till 9, not later. Thinks not till 10. (But see other witnesses as to hours.) Dinner at 1; an hour. Most go home, but some have it in the bottom (spare) room. Tea at 5, half an hour; in the work rooms. Only a few go home. Does not often work in tea time, but if she did it would count overtime. The steam is turned off, but she could turn the machine with the handle. They have water, hot and cold, for tea and washing. Has 5*s.* 6*d.* set wages now, and 1*d.* an hour for overtime. At Sunday school since she was 10; at the People's Hall night school twice a week two years ago, and now three times a week; at a week day school from four years old till 9 or 10. Can read. (Does.) Writes words in a copy book. Is learning sums. Cannot tell what 9 taken from 17 is.

Elizabeth Grundy, age 10.—Two years here at bonnet fronts, but not at work before. At first "screwed," then was a band wetter. They are "both warm," and in summer very hot. Has a sore throat now, but does not often have colds or headache. Hours are 8 till 7½, or if busy till 9. That has been many nights, and last winter till 10 once. In winter has come sometimes at 7, sometimes at 6, and stayed on the same days till 9. Meals (same as others). Has set wages, 3*s.* 3*d.*, and ½*d.* an hour overtime. At Sunday school since she was little, but does not know how little, and to week day school for a year once, but never to a night school. Can read the letters. (Spells with difficulty.) Has tried writing and cannot do it. Is not in the writing class. Does not know what sums or the numbers are (is shown large figures). Goes to chapel on Sunday night, and the preacher "tells us where we go if we're good and if we ain't "good."

[This girl was very pale and had her throat wrapped round, as had some of the others also.]

Harriet Brown, age 10.—Here two years. "Spoles," *i.e.*, winds lace on a light frame. Hours are from 8 till 7½. If they are "throng" they come at 6 and 7, and stay, but not often, till 9. The latest is 10, but

Lace Finishing. Nottingham. Mr. J. E. White.

that is not often. All stay together. Goes home to tea. Set wages 2*s.* 6*d.*, and ½*d.* an hour overtime. Sunday school since 4 years old; never night school; week day school for a year once, but, mother wanted her at home to "mind the baby." Does not know all the letters.

MR. CHARLES GRAY HILL'S LACE WAREHOUSE, COMMERCE SQUARE, NOTTINGHAM.

A large number of young girls are employed here in bonnet front making. The rooms are such as are found in a common house, though larger, but without any apparent means of ventilation beyond the windows. The machines in use in the several rooms are very numerous, and are heated each by a large supply of gas, though I had no means of arriving at the amount, beyond its being stated to be a very considerable expense. The air is in consequence very hot and oppressive, and the appearance of the girls seemed to show that they suffered from it. Two to whom I spoke had their throats wrapped up on account of soreness, &c., and others looked pale. I was unable to see the girls apart.

Mr. Charles Gray Hill.—Thinks that on the whole it would answer as well for his work to have only girls over 13. Has girls under that age, because at the busy time it is so difficult to get others, and when he has once trained them he keeps them on. Could not get enough girls under 13 to work double sets. Does not require more than 11 hours work a day except for about a month in the season, and then not more than 13. But the nature of the business is such that it would be impossible to begin before 8, the present hour. The people could not come earlier; it would require the presence of himself or some responsible persons to superintend the business; and the work for the day depends upon the orders coming in by the morning post. That is always the case in his business, and work put out to be done for an hour or two in the morning, and then put aside unfinished, would lose its stiffness and spoil. If girls under 18 were put under restrictions as to hours he would get the work done if he wanted it by having only those over 18.

Margaret Chawton, age 16.—Has "guided out" at the gauffring machine here for 1½ years, and was here for 2 years before. Has had the "tic" and been very bad here (pointing to her neck, which is wrapped in flannel). Has a cold often, but not headache. Hours are 8 till 7. When busy 8 to 8, or later at times, but "not often *now*." Summer is the busiest time, but two hours a day overtime, *i.e.* till 9, is the latest. Dinner from 1 to 2.10; tea from 5 to 5.40. Gets 7*s.* a week and takes it home; none is put by. Has been to a Sunday school since she could walk, and from the same age to a week day school till she was 11, and to a night school a few times. Can read anything in the Bible, but not read writing. Could write a little formerly, and was "in short division" in sums.

Sarah Ann Woodrooffe, age 8.—"Cuts off" the lengths as they leave the machine. At first turned the handle; learned that in a week. Here nearly a year. Hours are 8 to 8 or 9 in summer. Dinner and tea the same as last witness. Goes home for both. Has set wages, 2*s.* 6*d.* a week now. Began going to Sunday and week day school when she was 4, but left the latter to come here. Has been a few times to a night school. Can read in the Testament and write the Lord's prayer. Did addition sums. 11 and 11 is 23.

Elizabeth Bell, age 13.—Here 3¼ years, first as a "bandwetter," then as a "stamper." Hours are 8 till 7. Stays till 9 when busy, but not later. Gets 4*s.* Has been to Sunday school for the last year; went to a night school last winter; and was at a week-day school from 2 years old till she went to work. Can spell (very little). Not write or sum. Has a sore throat and cough. (Has her throat tied up.)

MESSRS. PRATT, HURST, AND MINNETT'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

Part of the business of this establishment, bonnet front making, is carried on in other and less convenient premises, consisting of two rooms containing several machines and from 40 to 50 persons. There are trap doors for ventilation, but the air is very close and gassy.

Mr. Pratt.—The condition of girls and children employed upon lace greatly needs improvement, and I wish that something could be done towards it. We take all the care we can, but the girls are open to very great temptation even in warehouses, and still more so from the streets and dancing rooms, and as they grow up as a rule with no training in household management, the choice of a suitable or even a virtuous wife so far becomes more difficult. It is of great importance that they should know better how to make home comfortable, and the men would not then seek for their comfort in public houses and elsewhere as they do. The only way that I see to improve the condition of the working classes generally is to raise the females by education, as they have to bring up the next generation.

I think it absolutely necessary that some broad principle should be laid down by law for the good of the children. It must be broad, for any law interfering with the management of trade if too strict would be very mischievous and defeat its own end. Our branch of the trade being a fancy branch is more liable to fluctuations than others. Still a reasonable limitation of work, if the same for all, would not hurt us. At any rate what must be done always can be. From 8 till 7 or even 6 is quite long enough, certainly in these hot rooms. If the girls stay longer they are not the same next morning. In our branch, if children had to go to school, we should probably find it answer better to pay more for elder hands than to have two sets. The work requires hands having some degree of skill. But we should see as the time came.

Formerly, when the carriers would take away goods as late as 10 or even 12 at night, we have sometimes worked on till then, and very likely should again if there were the same reason; but now they will not carry anything away later than about 7½.

Mary Birkin, age 16.—Works at a trapping machine. Has been a year in this room. Has the headache often, and used to have it in the warehouse before, but not so often, and never remembers having it before then. Hours are from 8¼ till 7½; often till 8½ or 9; has staid till 10 sometimes. Dinner from 1 to 2.20; goes home. Tea from 5 to 5.40, either in the workroom, as most do, or at home. There is a washing place and bowl and soap and water down stairs. Does piece work, and has got 8*s.* 6*d.*; about 6*s.* is the common pay. Hers includes 9*d.* for cleaning the

room, for which she stays half an hour after the rest are gone. School regularly twice on Sunday. Was at a day school half a year till coming here, and sometimes, in winter, to an evening school from 7½ to 10. "Had rather be excused" (reading out of a child's book). Is not good at it, and has to spell. Can write "not well," but no sums.

Jane Hussey, age 9.—Went to box making at 8 years old. Here six months. Cuts off the ends of the bands in this (bonnet front room). Hours are 8 till 7½; if busy till 8½ or 9 or 9½; if not, till 5. Meals same as last witness, but always has tea in this room. Does not know exactly what wages she gets. Takes it all home, and mother gives her her "other hours." Has got 6*d.* so, and has worked overhours for a week till 8½ or 9. Goes to school twice on Sunday; not to a night school; did to a day school till she was 6. Then out to nurse till she was 7; then back to school till 8. Can read short words, and write on a slate, but not well on paper. Did addition, but no other sums. 19 and 19 are——(does not know). Is often ill. Has headaches so bad, more than every week, but not often the sick headache. Used to have headaches before she came here.

Elizabeth Crofts, age 14.—Works at a trapping machine, and has been in this room two years. Her head aches very often, sometimes every day; more so lately, but she does not stay away for it. Sometimes can hardly get her breath when she has a cold. She trapped that finger in the machine, and left the nail in it and crushed the bone. She had to be away a month, and while she was away they sent her a little wage. Hours are 8 till 7½, or sometimes, but not often, 9½, though they may be late for two or three nights together. Has 1 hour and 10 minutes for dinner, and goes home for it. It takes her 20 minutes each way. If it is wet and her dinner is brought, she has it in the workroom. Tea at 5, half an hour. Always has the full times. It is very uncertain what she will get; the least is 4*s.* 6*d.*; most about 6*s.* 9*d.*; 6*s.* is about proper work. Gives it all to mother, because there are seven of them, and father does not live with them. Sunday school twice a day regularly; only once to a night school; and a very short time at a day school. Reading, "not much;" writing, "hardly any." Does not know what a mountain is; whether an eagle is a bird; or whether the sun rises in the north, south, east, or west.

[A very pale, weakly girl.]

Mr. George Hurst.—Any general measure regulating the labour of the young, which may be found necessary for their protection, must be right in principle, and, if so, any difficulties which may arise from it in the management of this or any other business, will no doubt settle themselves in time, either by customers being obliged to give longer time for the execution of their orders, or by the employment of more hands, or by some other means; provided, of course, that the regulations applied to all employed in the same manufacture, which is indispensable. If they gave the girls more room for improving themselves we should ultimately get the benefit of this in their greater intelligence. At the same time, it is only the youngest who most need this protection; and looking at the great proportion of our hands under the age of 18, I think that we should find it a more serious matter if the regulations applied to any over the age of 15, at which age they become at this work in many ways almost equal to women. If any measure restricting the labour of the young led to our employing more and older hands it would entail greater expense, but part of this would be made up by their superior skill and attention. If it applied to warehouses alone it would, I think, be effective to a great extent, if it could not give complete protection. Much of the work usually done in warehouses, as mending, carding, jennying, and finishing, is of a kind that cannot conveniently be done out of them. "Mending in the brown" is done in factories or elsewhere before the goods come to the warehouse. Drawing, clipping, and scolloping, though sometimes done in, may be and usually are done out.

I do not think it likely that there will ever be sufficient unanimity amongst employers to lead to the adoption of any general system for the benefit and education of the young apart from legislation, however much a large number might wish it. Most masters would, I think, object to work beginning before 8, as the business is generally superintended by themselves, some coming at 8, most from 8½ to 9, and a few later. If it were necessary, however, arrangements could be made for having work ready for the hands beforehand; and this must be done even on the present plan. The work of the day often depends in some degree even on the arrival of the morning's post, orders being often very sudden. We give a half holiday on Saturday. Though the people work by piece work, and so lose their half day's wages, they much prefer this, and would dislike to be without it.

MR. J. F. SQUIRE'S LACE MANUFACTORY, PARK STREET, NOTTINGHAM.

Bonnet front making is the sole business carried on here. The gauffring and making-up machines are crowded in a small space, with imperfect ventilation. There are windows running along one side immediately over the machines, but so close that they would probably rarely be opened, if not from the effect of damp upon the work, at any rate from the invariable objection to a current of air.

Mr. J. F. Squire.—Is a bonnet front manufacturer, and has been in the lace trade 10 years. Would be very glad to have anything like the factory regulations, with the exception of the children being required to go to school. Fears he never should get enough for double sets, for however flat trade is he is always short of hands who understand the work. This is because the business is new. For parts of the work children are quite as suitable as elder hands, and cost less. However, they are more troublesome, and he does not like to employ them except where the work is of such a kind as to leave them no room for negligence or escape from duty, and he would sooner be without them altogether. Indeed, he has now but few under 13. Dislikes late hours very much, and has repeatedly tried to begin work earlier, but cannot get the hands to come. The usual hours in warehouses are from 8 till 7. From 7 till 6 would suit him best. But the hours, if fixed, must be the same for all branches of the lace manufacture, or the hands would leave one work and go to any other where they could begin later and also work longer, and so earn more. Believes his own business to be less fluctuating than that of almost any other house in the same branch, as he has chiefly orders from the same places at pretty regular intervals, and spreads the work out evenly as much as he can. But in houses where business is of the usual kind, depending on uncertain orders, the hours are very irregular. Has known large places working on at bonnet fronts till 11 and 12 p.m; not for about the last year, but up to about that time it was very common. Of late children have been employed less in private houses and more in warehouses, the manufacturers finding that it answers better to have the work done on the premises, as they can regulate the work better, and avoid loss by the material being stolen, &c. The cost is about the same, as the profits of the second-hand mistress are made chiefly by her employing a lower class of hands and paying lower wages, in the proportion, probably, of about 2 to 3. It would not pay the manufacturer to employ the lower class, as he would lose in trouble and in the cost

ace Finishing. Nottingham. Ir. J. E. White.

of overlooking, &c., more than he gained in wages. The treatment of children in the private house depends mainly on the disposition of the particular mistress. Has often heard those women spoken of as very kind, and their work easier than that in warehouses; and in other cases as very severe, and their work like slavery. Any limitation of hours would interfere most where the business is foreign, as, if goods are not ready for a ship, the order might be cancelled. When in a foreign warehouse he has had to work till 2 in the morning, and in the season might have to do this twice a week for six weeks. For foreign orders people are subject to this still, to his knowledge. Fears that a restriction on the hours might diminish the demand for goods in foreign markets, of which Prussia and America are the two principal. Leipsic is about the chief foreign market for fancy lace, and great orders are given for that before the Fair there. But the Russian war and the Austrian troubles in Italy have made that demand fall off. The countries affected by these used to buy principally at Leipsic, and do not come here much direct. It is the fear of injury from foreign trade, as that of France, which makes manufacturers afraid of any restrictions.

Emma Wild, age 17.—Has gauffred here for nine months; was in a dressing room for two years, and at lace work since she was 10. The hours here are from 8 till 7; if busy, till 8 or 9, and she has stayed till towards 10. Dinner at 1; an hour. A few stay and have it in the work room. Tea at 5; half an hour. All but one or two have it in the work room. Has set wages, 7*s.* a week and 1½*d.* an hour for overtime. School twice on Sunday; has gone to night school for three years, and six of them here go now on Tuesday night, and do not pay for it. They are very kind at school. Was at a day school for a year or two before she went to work. Can read a chapter in the Bible without spelling, and write a letter. Has not done "arithmetic," but has "sums":— "dictation," multiplication, and subtraction. Has read some history, viz.: that of Joseph, but not of England or any kings. Her work requires a great deal of attention, as she has to keep her eyes on the lace all the time to keep it straight. Does not mind the heat. It is very hot when they are in a hurry after tea and the gas-lights are lit. When they stay late they have to work harder. Has a cough now, but not often.

Anna Barker, age 13.—Stands close to the gauffring machine to "take out" and "cut off" the lace. Found the work very hot at first, but does not now, and does not have headaches. Had a very bad throat a few weeks ago, but is well again. The hours are from 8 till 7; if busy, till 9; sometimes till 10. Not often so late, once a month perhaps. Same meals as last witness. Eats them by the machine or downstairs. There is soap and a towel at a tap in the yard. They must keep themselves clean for this work. Has set wages, 4*s.*, having begun at 2*s.* 6*d.*, and risen 6*d.* about every three weeks, but will not rise any more now. Master engages and pays them all. Goes to the Independent school and chapel twice on Sunday; to school on Tuesday night; at week day school for two or three years, and left two or three years ago. Can read a few short words; is learning to write at the night school; never did any sums. Has heard some say that the Queen lives in London, and is above other people, and wears a crown.

MESSRS. COPESTAKE, MOORE, AND CRAMPTON'S LACE WAREHOUSE, HOUNDSGATE, NOTTINGHAM.

These are large but low and not convenient premises, having, I am told, been formed from dressing rooms. Others are being built adjoining on a large scale, which will no doubt be advantageous to the health and comfort of the workpeople.

Mr. Samuel Merrick Sands.—I am manager at Messrs. Copestake, Moore, and Crampton's warehouse, and am left in charge of the business here. This business is general, including most branches of the lace trade, whether plain or fancy.

The busy seasons are the spring season, from the beginning of March to the end of May; the autumn season, a less busy one, in September and October. The winter is very quiet. An American demand, when there is one, which of course now unfortunately there is not, helps to fill up this time.

The usual hours are from 8 till 7, or in very busy times from 7 in the morning till 8 in the evening, or from 8 in the morning till 9 in the evening. But girls under 14 are never kept for the late work. When there is more work than can be done within these hours, it is given out, often in very large amounts, to women who get it done somehow. I do not ask or know how. There is never the least difficulty in finding women who get the work done, even in the busiest times.

But I very much dislike the system of giving work out. It is done much better on the premises by people of a better class under my own eye and control, and I believe with much less pressure upon those employed. If anything is wrong there are responsible people, such as the overlookers, &c. who can be called to account for it.

People are never employed unless they bring a good character, and if there is any immoral conduct the offender is discharged at once, and they know that this will be the result.

The same hands are kept as long as possible and gradually promoted to the higher places, such as that of overlooker, &c. If the next in position is fit she is taken, if she is not fit, some one else is chosen, but always from within the establishment. This system works extremely well.

It is a rule of the establishment that none under 13 years old are to be employed, though this may be sometimes disregarded by the overlookers. But if there were any regulations relating to children under 13, this rule would be strictly enforced, in order to save the trouble.

The work could generally be done on the premises between 6 and 6. If it could not, it could be done by giving it out.

When the days are long enough, work from 6 to 7 would answer much better than from 8 till 9 or 10, and I try to approach this. Late hours are very objectionable and do not answer.

The people, however, like the late hours best, and very early hours are unsuitable for the hands employed, who are of a superior class. Many of them also, fully one fifth I should say, girls as well as women, come from a considerable distance, some from 3 or 4 miles, some from 1½ miles.

Large new premises are now being built. The rooms, instead of being low and confined as some of the present are, will be spacious and airy, and, say, 11 feet high. More hands can be then taken in, and greater regularity of hours secured. This is one of the objects in view.

In the bonnet front rooms, where an amount of impure air is necessarily produced by the use of so much gas, the work is never allowed to be continued after the regular work hour under any pretext whatever, not even for a special order. That is the rule of the place, and it must be kept to, even if the order go elsewhere.

I believe almost all in the place can either read or write. There is a library, but it is not very much used. It consists chiefly of tracts, &c. and not of amusing books. Tracts are given away occasionally as prizes.

Lace Finishing
Nottingham.
Mr. J. E. White

Sarah Ann White, age 14.—Clips and scollops. Hours are 8 till 7, if busy till 8 or 9. Dinner at 1, at home; tea, 5 to 5.40, here. Has been to school twice on Sundays, and chapel afterwards, since 6 years old; to a night school once a week every winter; and three years to a day school till she went to work. Has been here two years. Can read and write "nicely." Thinks that she could read any book that was put before her or a chapter in the Bible. Does not know of subtraction or division. Never did much summing, but learned reading, writing, and sewing.

MESSRS. S. WILLS AND CO.'S LACE WAREHOUSE, BROADWAY, NOTTINGHAM.

Mr. S. Wills.—The factory system has done much good and worked well for all concerned. There is nothing in lace finishing in the nature of the work itself which would make the same regularity impossible or inconvenient in that also. The occasional late hours in warehouses are caused by sudden pressure for orders which must be completed by a day named. But if the hours of young people were shortened in the evening they could be made up by beginning earlier in the morning, the present hour being 8. Work could be got ready before hand for the work people to go on with without the whole establishment being obliged to come, or any but persons to open the place. This is done in busy times as it is. If this were not sufficient, more hands could be taken on. There are always plenty who are only too glad to get into a warehouse, which is an object of ambition, instead of being under second hand mistresses.

I believe that nothing is really gained by night work. A person who works late at night feels the effects of it next day, is apt to come late, and cannot do the work so well. Besides if people know that they are going to work late at night they loiter over the work in the day, thinking that they can make it all up afterwards.

The lace factories are now working short time, but since they were regulated I believe it has been found that more work is got through in a given time than was before, because no time can be wasted, and the winding, &c. must all be ready to the minute. The amount of work actually produced depends not so much upon the length of time for which, as the manner in which, the work is done. It depends upon the free exertion of workpeople who have something to gain in wages or leisure by working well. I have found by putting people upon piece work according to the rate which they had previously earned, that they actually earned more in part of a week than they did before in the whole. I believe this want of inducement to exertion to be, commercially speaking, the mistake of slavery, which must in course of time lead to its abandonment for free labour. If the hours are lengthened the quality of the work is depreciated in proportion, as the energy cannot be kept up.

Notwithstanding, there is risk that if anything like the factory regulations were applied to warehouses work would be taken more into private houses, where women and children work at a cheaper rate and for longer hours than the women and girls in warehouses would do. Here for instance they object to long hours and expect to leave at 7. But in private houses in a good time of trade work is carried on far into or even through the whole night, though probably not now while trade is so bad. In a busy time I could always find women who would offer to do a large piece of work at however short a notice, so short that it seems necessary that part of the work must be done in the night and by many hands, in addition to the woman who takes the work.

In spring and summer it is a common thing to see women leaving warehouses in the morning with large bundles of lace which they have to get finished by a fixed time, often very short, as the next day, but they always get it done somehow, no one knows how. I have understood that the wages paid by them to their girls are very small. There is however an objection to giving work to be done out if it can be helped, arising from the risk of loss by dishonesty. The goods in many cases are brought back packed up into bundles and so cannot easily be looked over again in the warehouse, and any loss of quantity could only be discovered in case of the customers complaining. In flat times the work is usually done in.

Mr. Edwin Clayton.—Is manager here; has been employed in other lace warehouses before. There has been much less night work since an alteration of hours made by the railway. Formerly the luggage train left at 6 a.m. and goods were received by the railway up to within about two hours of that time. Consequently in many warehouses the work was not finished up to the last moment that would allow of the goods being dispatched. Has stayed on himself in a foreign warehouse till 2 or 3 a.m. for this purpose, but the girls in that case would leave about a couple of hours sooner, but the rest of the establishment stayed. There are more details to be attended to for shipping orders, affidavits prepared, &c. In another warehouse, not foreign, has stayed late, but not after 12. But the railway, finding it desirable to deliver goods in London early in the morning instead of in the middle of the day, altered their luggage train to the evening, and the latest hour at which goods can now be dispatched from a warehouse is 7 p.m. five days in the week and 5 p.m. on Saturdays. Saturday was formerly the worst night of all for late work. When trade is busy the females are the most important part, as their work being more manual is lengthened more in proportion than that of the men, and they can stay on to work without any other persons than are necessary to see to the safety of the place and to shut it up, just in the same way as they can begin in the morning without any others of the establishment than those required to open it. In one large warehouse in which he was it happened once that a great deal of work was wanted, and instead of being given out to women, as usual, rooms were taken by the manufacturer and women and girls employed in them for the purpose, and it was found that the work was done at just half the rate paid before to the women, some of whom had received as much as 4*l.* or 5*l.* a week for the work which they had taken out, so that the amount paid by them to their hands must have been far below what it ought to have been. The hands then taken into the warehouse had left second hand mistresses for the purpose, and were glad to do so. They were so ignorant that though they had been in the habit of being paid by the piece they could not count what their wages ought to be, and some, even young women of 20, could not read their own numbers put on their work. The hands are in no way so fairly dealt with by middle employers as they are by principals. The mistresses, besides paying lower, have a way of putting on forfeits for injuries and stoppages of work beyond what they have to account for themselves.

In these houses work is carried on at all hours if necessary, and this is well known in the town. There is no need now, but when trade revives the practice will no doubt remain the same. An instance of the gain by regularity of hours is given by those hosiery hands who have left working in their own rooms to go into factories, where they are tied to the hours of the engine. They gain of course the steam power but in addition to this they must work evenly all the week with the steam instead of wasting all the early part and working day and night at the end. They now get double their former wages.

That (in answer to my notice of a piece of thick

aceFinishing. Nottingham. Ir. J. E. White.

black cotton net) is dressed with what is called "Paris dressing," which refers to the quantity of starch and the glaze used, and takes five times the time of dressing a piece of common Brussels net. The rooms where this (Paris dressing) is done are very injurious to health, so much so that many will not work in them at all, and in one case that he knows of young Irish women are brought over yearly for the purpose. Few can stand it more than five years. A dresser has told witness himself that he would not give much for any who had been at it ten years. Ten years is decidedly above the average, but the length of this time will depend much on the state of trade and the consequent hours of work. In some kinds of dressing there is not much harm, but all are, he should say, far less healthy as an employment than bleaching on account of the great heat and changes to cold. The people who work in dressing rooms are very subject to consumption and also to defective sight from the heat of the steam pipes. They ought to live well, but he believes they do not.

The hours in dressing rooms are very irregular. Indeed in the busy season the work is carried on through the whole night or nearly so, double sets being used. That is a general practice, but this would not apply to the case of the young, as they are but little employed, and children would be of no use, having neither the size nor the strength required. But for the last two years the dressing rooms have had very little to do.

There is but very little hand power lace made now, and that chiefly in the villages round Nottingham. The work is generally done by a man and youth, generally his son or one of the family, and, as strength is required, rarely under the age of 16, but this kind of work cannot compete with steam, and is dying out, even single machines being taken into factories where steam power is let off, if a standing can be got at a reasonable rent.

MESSRS. S. WILLS AND CO.'S BONNET FRONT AND LACE CAP MANUFACTORY, QUEEN'S ROAD, NOTTINGHAM.

Eliza Hobart, age 14.—Turns the gauffring machine with one hand and "guides out" the lace with the other. Hours are 8½ till 7, but it is sometimes till 8 or 9 or 12 p.m. Has stayed at this work till 12, coming at 7, and has come at 5 a.m. and stayed till 12 p.m. If they come early, brings her breakfast. Dinner at 1, an hour, but it takes her an hour to go home and come back, so she dines in the work room. Most live nearer and go home. Half an hour for tea at 5; most stay. Has set wages, 5*s.* Has made 6*s.* 6*d.* with overtime. Goes to school and chapel every Sunday, but never to a night school, and was only a short time at a day school. Says she can read. (Can hardly spell.) Cannot write or figure. Has not often headaches.

Martha Broadhurst, age 9.—Went out to work when 7. Is a band wetter here. Comes at 8½, at 8 in summer, and stays till 6½ or 7½; not later. Home to dinner at 1; lives quarter of an hour off. Can read a little; not write or figure.

Martha Raven, age 13.—Has worked here 7 years. Makes "tucks." Proper hours are 8 till 7. Sometimes comes at 7, and stays later, but is short now. Has dinner and tea in the work room. The others in her room go to dinner at 1. Has 3*s.* 6*d* a week. If they work harder and gain so many hours they get more. Has gained half a day, sometimes a day, in a week. School on Sundays; never went at night or on a week day. Can read the Testament, but never did any writing or summing. Has good health and sight, and hardly ever the headache.

Mr. William Keys.—Is manager here. The busy season in this branch is from just after Christmas to Whitsuntide, with hardly any fluctuation at all. Till October it is middling, from then to Christmas dull. Sometimes orders require extra work, till 10 p.m. perhaps, or, but rarely, to 11. The pressure is not so great as in the fancy lace branches, and this is not to any extent a shipping trade. The goods are so light and liable to crushing that they will not stand a voyage, unless very short, but must be sent out not made up. The bonnet front business is only 7 or 8 years old, and has grown to any size chiefly in the last 3 or 4 years, owing to the introduction of improved machines.

This work, with the running on also which belongs to it, is now done in many London houses, as well as in other places. There are, he believes, seven or eight in Manchester, one in Liverpool, two or three in Glasgow, and two in Dublin. Machines are sent from Nottingham for the purpose, and girls go to instruct others in the work. In London work is done in much the same way as in Nottingham, many children being employed in warehouses, and some lace being given out to women. The work in the warehouses is often very late, frequently till midnight. It was so in a warehouse in which he was, and it was to his knowledge in others also. Was told of a case where the hands were locked in. The ages of the girls are much the same as in the Nottingham warehouses, but those under 15 or 16 were not kept so late. If the younger girls had not done enough work beforehand for the elder to go on with, the elder would have to do it themselves.

The work required in this business could be done between 6 and 6, but unless all branches of the lace trade were on the same footing all the hands would leave for any part of the employment at which they could work longer.

MESSRS. HEYMANN AND ALEXANDER'S, LACE MANUFACTURERS AND MERCHANTS, STONEY STREET, NOTTINGHAM.

No children are employed in this warehouse, though very large, and no persons are admitted to work unless able to read and write.

Mr. L. Heymann.—All legislation with regard to the employment of labour is, I think, objectionable, excepting of course certain cases in which it may be necessary, such as in employments in themselves noxious; and I think that there is no need of it in the employment of lace finishing as carried on here in warehouses and private houses. The work is light and the proper factory hours are observed, unless in very rare cases. Very great improvements have been made of late years in the hours and general system of this labour by the introduction of mechanical appliances for saving labour,—by the building of more spacious work places,—and by improved arrangements and facilities of many kinds,—as well as by the gradual effect of public opinion. Any further improvement that may be needed will be better left to the operation of these influences, more effective than laws. If there must be legislation at all it ought to extend to all employments, agricultural as well as manufacturing, and be treated as forming part of the general law of the land, and enforced in the same way, *i.e.*, not by inspection but by the ordinary machinery of the law and by police regulations. Any inspection of such places as warehouses or private houses is, I think, out of the question. I should certainly discharge any persons under 18 if employing them involved inspection and the trouble

Lace Finishing.
Nottingham.
Mr. J. E. White.

of book-keeping. Moreover, the machinery necessary for carrying out any such general system of inspection effectively would be so costly and so oppressive as to be intolerable.

I do not think, however, that children ought to be employed upon paid labour of any kind, even on such light work as lace finishing, under the age of 8, or even then for more than a day of eight hours up till the age of 10 or 12, but after the latter age they ought to be allowed to work the full usual day of about 10 hours. I also think that all children ought to have an elementary education before they can be employed at all, for which in most cases 11 or 12 is early enough. But if from beginning earlier they need further education, it would be much better for both their work and their learning to have work and school on alternate days than on half days. Any regulation which made it necessary to begin work here earlier than the usual hour of 8 would be very mischievous. In order to be at work by 6, or even 7, the work people must leave home unfed and cold, and then wait an hour or two for their breakfasts, and would be less fit for work as well as, more especially in the case of the young, suffer in health. The factory people suffer from this.

If education were once generally enforced throughout the country for a short period, it would be so generally valued that there would be no further occasion to take any measures to secure it.

Mr. Leonard Cresswell.—I am general manager of the lace finishing department of this firm, and partner in another department. I think that there is now no ground for legislative interference with the employment of the young in lace warehouses, and that it would be injurious to the trade. A few years back the hours in some warehouses and in private houses were excessive, and such as to call for interference. But these have since been shortened by the influence of public opinion, and masters as a rule have come to see that late hours, *i.e.*, any beyond 7 p.m., except on rare and special occasions, and then for more than an hour or so, are oppressive to the young and not advantageous to the employers, and consequently to prefer to increase the number of hands rather than the hours. This in a great measure has led to the great increase of the number of hands now employed in warehouses as compared with former years, though other reasons have contributed to this, *e.g.*, the advantage of saving the profits of the second hand mistress, to whom much of the work, as drawing, clipping, and scolloping, was formerly given out, and of keeping private patterns from being seen outside and imitated, as well as of having the work better done. The change in the latter respects has been chiefly within the last five or six years. Work now is given out by this house only to 36 women, and of these only two keep children to help them. Though this house in particular, on account of its very great connexions, has been and is exposed to sudden rushes for very heavy amounts of work, I have never, during the whole 25 years that I have been engaged in it, found any difficulty in getting as many hands as were wanted to do the work within reasonable hours, even in the busiest times and under the most pressing circumstances. It does not happen that all are busiest at just the same time.

But though I deprecate strongly any interference with such a business as carried on here, I think that it should be imperatively required by law that children should not be employed in any way until such an age as they have received the ground works of education, say about the age of 12 or 13. For our work I object to them under 13. If they have not mastered these ground works before they enter employments, they are not likely to do so afterwards, and will never acquire a taste for improving themselves. I have had a marked instance of this. About 12 years ago, finding some big girls of from 15 to 18 years of age unable to read or write, I offered to pay for their instruction at night schools, allowing them to leave work at 6 for the purpose without any diminution of wages, and they declined. Since then, before receiving any one into the warehouse, I have made it a rule to apply the test "Can you read? Can "you write?" and if they cannot, reject them. Education is essential for all. Educated people as a rule are more dutiful to their parents, more useful to their employers, and in every way better members of society. But education is more especially important in the case of girls. If they are without it, by the time they are 15 or 16 they come to think of nothing but dress, having no higher taste, and, as in this town they are by that age in a great measure self supporting, they then throw off parental authority and settle down in houses, generally with friends, where they are not interfered with. I have long paid special attention to the case of those who are most ignorant, and have found that when they leave work they do not go home or to any place where they can improve themselves, but seem to have no desire beyond that of displaying themselves. At the same time they are unwilling to take part in home duties, which they look upon as drudgery, and thus they never acquire habits which will fit them for the married state, and are unable to cook a dinner, clean a house, or generally make home comfortable. I speak this from my own observation of what I have seen in their houses when I have gone there to make inquiries in cases of sickness, as well as from inquiries which I have made about them in other quarters. The social consequences of this are, as is plain, very serious.

I strongly object to any meals being taken in any of the work rooms, where, from the fact of numbers being employed together, the air necessarily becomes in some degree vitiated. To obviate this a large kitchen has lately been fitted up on the premises for the use of those who, from living at too great a distance or any other reason, do not wish to go home for meals.

There are special difficulties and evils connected with the lace manufacture here. A large place dependent solely upon one article of manufacture, even though it be a useful one, is likely to suffer much more than another as soon as any interruption occurs to the supply of that article. But it is much worse if a place be the seat of a single fancy manufacture only, as that is the first to be affected by any panic or distress, and a general loss of employment follows, and even short of this there is great uncertainty in it. From my experience, and inquiries which I have made when parents have brought their children, though quite young, to beg for work, often piteously, I believe the want of regular employment for the parents to be the great cause which leads to children being taken so early from school to be sent to work. I have often urged the importance of establishing here some other branch of manufacture of a more useful kind, shoes for instance, which would divide the employment and be less variable.

Sarah Freeman.—Has been a finisher here for 15 years, her work being to tighten the cards round small packets of lace. The hours are from 8 till 7, or if they are busy, till 8; but the different rooms vary, and one may go while another stays. The numbers in the warehouse have much increased, and the hours are shorter than they used to be, but she has never stayed beyond 9. There is an hour for dinner at 1, and half an hour for tea at 5. Those who do not go home, as those who live at Radford and Ison Green (a mile or two off) have their meals in the kitchen, which is a nice room, and will hold all that wish to use it, and cooking is done for them if they like, and water provided. No one is allowed to stay in the work-rooms at meal times. She does not hear the people say which they like best, the rooms heated by steam or those in the new building heated by hot air. Mr. Cresswell does not like taking any girl under 14, and requires them all to be able to read and write. Could do so herself when she came, and go on errands with tickets for orders, &c. to other warehouses. A finisher's proper wages are 8*s.* and a girl at first coming has 5*s.*

Lace Finishing. Nottingham. Mr. J. E. White.

MR. JAMES HARDY'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

These premises, which are very large and airy, are heated throughout by means of numerous fire-places, with the exception of the top room, which, being a long attic with sloping sides, and therefore less suited for fire-places, is heated by two steam pipes running along on each side. These pipes are very small, only an inch and a half in diameter, but are so hot that the hand cannot be placed upon them, and though the room was not in use the air was very hot and choking, and in marked contrast with that of the other rooms, most, though not all of them, spacious, in which large numbers were at work, and yet the air was fresh. There are ventilators in the attic roof, but the women and girls had these stopped up by nailing green baize over, and the nails were still there, though the baize had been removed and the ventilators altered; still, however, not in such a way as to have much effect.

These details are of importance taken in connexion with the common, indeed the universal, complaint by women of the air and heat of rooms warmed by steam, and the evidence of Mr. Riley, given below, as to the nature of steam-pipe heating. At the time of building the warehouse, the question of fire and pipe heating was fully weighed and decided in favour of fires, notwithstanding their greater expense, from a conviction of their being far more wholesome. Where steam is on the spot for an engine or any purpose it can be applied as a means of heating at hardly any cost but that of the piping, as seems shown by the fact that it was on in a room not at the time in use for work. A small engine of less than one and a half horse-power has been placed at the top of the building to turn small rollers, which can be turned also by hand. There is a larger engine below for pressing the lace when on cards, attended only by adults.

Mr. James Hardy.—Mine is entirely a general business, more so than that of most houses, including the finishing of plain and fancy lace, both cotton and silk. Lace does not fluctuate on the whole more than it did, but on the contrary has become more of a staple manufacture, and the demand for plain net is spread more evenly through the year. For instance, the Americans, who used to come to buy only at one season, now buy at more frequent intervals through the year, though from the middle of November to the end of January is their chief time. Other orders have become more frequent and smaller on each occasion than before. In consequence of this, there are not the same long continued periods of heavy work that there used to be. Night work was then continued for a long time together to complete heavy orders, especially by foreign houses. Still the notice now given for orders has become shortened more than in proportion to their smaller amount; but this can be met to some degree by means of a stock kept in hand, which could not be done when the orders were larger on account of the greater risk of keeping a large stock. At any rate there is less irregular late work than there was. Orders may be cancelled if not delivered in time, but I am not aware if this is a custom of trade recognized so far as to amount to an absolute right, if it were worth while to contest it, which it is not.

The character of lace now made is of a kind which requires more and younger hands than formerly, not only by the increase of the trade, but by the introduction of certain kinds of work. For instance the great demand for edgings requires more drawing, and the patterns formerly produced by embroidery by hand, which required the skill of women, are now made by machinery, the hand being employed only to remove the superfluous threads by clipping. This is work of an easier kind and can be done by younger girls.

In the busy half year a day of about 13 hours, including one and a half hours for meals, is needed, but there is nothing in the character of lace finishing itself which would prevent beginning work earlier than the present hour (8) or employing double sets of children. The work can be so arranged as to allow of the hands beginning at once when they come. Indeed some warehouses do begin at 6 when they are busy. If employing two sets of children, and so a greater number of them, increased the wages which they could demand too far, the work could be done in houses, if any, where only one set could do the work; but the increase would probably not be of any moment. But if less than 13 hours were allowed for the young, the deficiency could not be made up by employing more hands, as in summer they are sometimes not to be got, though even then the scarcity is not such as to raise the rate of wages appreciably, though some houses prefer to give more to get their work done. If the work were not done in time for the fashion it would not be done at all, but lost to the trade, lace being a thing which people can do without unless they have it as they please. The wages are paid on Friday to suit the work people for market, &c.

Mrs. Widdowson.—Is an overlooker. Chooses only girls of good character, and will not take them without, even when hands are scarce, which happens now and then. If the set is once good, they keep one another good and respectable, but bad ones coming in might spoil it. Did not at all like to begin clipping in the warehouse as they have lately done, because it is understood that the clipping girls, as a class, are more ignorant and less respectable. Thinks this may be because they have worked more in private houses which are not so clean and well ordered as warehouses. Has had 20 girls ask to come here, because they did not like the language which went on where they have worked before. All are required to number their own work, which they can do by putting on tickets ready numbered, and though they cannot all write them, they can read them. This saves trouble. All the women and girls, without exception, like the fire-heated rooms best, and often say so, especially those who have worked in the attic.

Elizabeth Cooke.—Is 19. Worked in the attic; it smelled very bad, like sulphur, when the steam was put on in the morning. Sometimes that was not till they had been there an hour, and before that it was cold. Believes the steam is not at all healthful, and used to hear the rest complain of it a good deal, and it made one or two ill. Used to have the headache when there. Has not ever in this (a fire-warmed room).

Louisa Blazedon.—Is 24. Worked in the top room. Likes this (fire) room very much the best.

Mrs. Timms.—Is overlooker in another room Does not like girls under 12, even for the easiest work, which is drawing, done here by tearing the lace and ripping off the thread at the rough edges, and joining lengths with the needle. Thinks most of her girls can read pretty well, because she sees them reading at tea time, and sometimes a bigger girl gets a few round her and helps them to read in the Scriptures, &c. That girl (next witness) is the worst reader and is very poor.

Elizabeth Ann Bywater, age 12.—Went to a lace mistress at 8 years old. There were 18 or 19 girls. The hours were called from 8 to 8, but if they were busy they went at 6 a.m and worked till 9 p.m. Can spell (hardly). Father is a glove hand.

407

Lace Finishing.
Nottingham.
Mr. J. E. White

Mrs. Roughdon.—Is overlooker in the cap room. Children are not suitable for her under 11. Always requires a character, and can generally get plenty of girls, as they like coming, because Mr. Hardy is a good master. Always makes inquiry of her girls whether they go to Sunday school, and finds that they do. Some of the bigger are teachers there. There is not one who cannot put on her number to her own work, but some cannot write them.

Mary Ann Brown, age 11.—Rips blond. The hours are 8 till 7. She always leaves then, but sometimes the bigger girls stay till 9. Dinner at home at 1, an hour; tea here at 5, half an hour. Has been at a week day school ever since she was little till she came here six months ago, and still goes on Sunday, but never to a night school. Can read anything. (Reads hard words.) Can write and do "all sorts" of sums—multiplication, division, &c. Father is a plate-layer on the railway.

Lucy Moorsom, age 13.—Here four years, and a year before that at a mistress's, where the hours were 8 till 7, or, if busy, later. Hours here are 8 till 7, or sometimes, but not often, till 9. Was at a day school till she went to work, and goes on Sunday now, but not to a night school. Can read (longish words) and add figures (does).

Mr. John Riley.—Is a steam and general engineer, and has fitted several warehouses and other buildings with heating pipes. Steam can be supplied at a greater heat than water, which can only be raised to a certain point, and smaller and consequently less expensive pipes will therefore answer the purpose, if steam is used. The greater the heat the drier the air. This can be remedied in some degree by placing pans of water over the pipes, but he has only done this in a few places where the rooms were very much boxed up and there were no means of getting ventilation. The water only moistens but does not purify the air, but the moisture makes the heat more pleasant. However it is seldom used. If instead of the pipes running along inside the room, where they heat only the air already inside, as is usually the case, a large surface of piping, gained by means of coils, be exposed at certain openings to the outer air, a moister heat and purer air can be spread over the room. Professor Faraday, Mr. Fairbairn of Manchester, and Dr. Lankester of London, to whom he has submitted this plan of steam heating, think it very good, but still inferior to water heating, because the temperature cannot be raised so high by water. Smaller pipes will answer for water if Perkins' principle of coil and high pressure be adopted; but this is more expensive than the common plan. It is a mistake to suppose that iron piping will smell; it only does so at first. This, if the iron is wrought, comes from the oil used in the fixings; if it is cast, from the red lead put into the yarn used at the joinings, or the cement which is put outside them. But this soon goes off if there be good ventilation, though sometimes by carelessness too much red lead may be used. If the pipe smells afterwards it is from allowing dust and dirt to accumulate on the pipes, and this is often the case. Has seen girls eating their dinner or tea on the pipes, and the fat and slops running down. Of course the iron will smell then, as it does in a kitchen fire-place unless kept clean. It is very essential that the piping should be kept perfectly clean. This is aided by rubbing the surface with black lead, which will not allow the dust, &c., to settle so much, and also increases the heat given out, a light coloured surface throwing off much less heat than a black one.

MR. JAMES HARTSHORN'S LACE WAREHOUSE, MANSFIELD ROAD, NOTTINGHAM.

These premises are part of a large group of factory buildings in an airy situation almost out of the town. Great attention is paid to the comfort of the people in every way, as by a dining room, washing places, separate closets, &c. The cleanness of the place is striking. The whole place, work-rooms and stair-case, has been whitewashed twice within the year, and the floors are scoured every two or three weeks. Great cleanliness is found to be of importance not only for the sake of the people, but also of the work itself. An objection is sometimes made by employers to whitewashing, &c. There is another warehouse, part of the same establishment, in Pilchergate, Nottingham, but employing only a small number of females and but one child.

Mr. James Hartshorne.—Looking at the number of children and young persons whom I employ in lace finishing I consider that any limitation of their hours, if the same as in the factories, must appreciably diminish the amount of work done, and would not meet the necessities of the busy seasons, even that in the autumn, *i.e.*, September and October, scarcely that in the winter, *i.e.*, December, when the demand is chiefly for shipping orders. If to make up for this more labour were employed it would increase the cost of production, and make the balance still more in favour of France, where the cost of lace finishing labour, as compared with the English labour of the same kind, is as three to five. I know this from my own inquiries of French lace manufacturers of my acquaintance. I could not employ two sets of children.

As regards such restrictions as referred to, the case of lace finishing differs from that of lace making in several ways. I speak having experience in both. It is true that the labour required for finishing is, generally speaking, of a less skilled kind, but I have often found a difficulty in getting it, though I have never found any in getting what I wanted for lace making by means of men and boys out of work. Again the number of machines in Nottingham and the length of hours which they can work would enable them to meet any demand, however sudden. The amount of labour which they require is much less than that of finishing, and therefore can be increased with less difficulty. Taking the average of my work, which is fancy silk of the best kind, I reckon, from the proportion of hands which I employ in making and in finishing, that it takes several hands to finish what one can make, though I cannot say exactly how many more, perhaps from three to five times as many, or more than that.

When the lace is made I do not know how I may wish to finish it; I may want to embroider it or not, or to make it up for one market or another, the lengths required for different markets being different, and that which is made up for one being liable to be rejected for another. Unless I wait I lose the advantage of a turn of fashion or of meeting a given order.

I dress my own lace, and always find that I can do as much as I want within factory hours. But a time for meals or leaving work should not be fixed to within half an hour. It is impossible to say how long a piece will take to dry. It will vary with the nature of the material and the state of the atmosphere and temperature, and occasional accidents. If a piece is once begun it must be finished, or the dressing would dry on and spoil it. The average time of dressing lace, such as I make, is about half an hour, though in some cases it is much more. If a piece came off, as it would generally, leaving only part of half an hour before a specified hour for leaving, either that time must be lost or the piece hurried and perhaps spoiled altogether. The loss either way would be very considerable. I use no steam power for dressing.

As regards whitewashing, soapwashing, &c., there is less difficulty in the finishing part of my premises

Lace Finishing. Nottingham. Mr. J. E. White.

than as regards the factory. I consider cleanliness essential, and it has an important moral influence on the people. My lace finishing rooms are washed every two or three weeks, and the ceilings, &c., often, *i.e.*, as much as twice a year if they need it.

Elizabeth Hinton, age 10.—Here a few months, but was over 10 when she came. Was at school till then, but had to come to work, as her father died; he was a book-keeper. Can read, write, and do addition. Goes to school on Sunday but not at night. Comes to work now at 9 o'clock and stays till $7\frac{1}{2}$, with an hour for dinner at 1, and half an hour for tea at 5 in the room here.

[This witness is in the Pilchergate warehouse, the remainder in Mansfield Road.]

Emma Taylor, age 16.—Clips. Hours 8 till 7, sometimes to 8, very seldom longer. Dinner at 1, an hour. Tea at 5, 40 minutes. Has it either at home or in the tea room. Gets 7*s.* 6*d.*, piece work. Has worked five years. Pays her board to her mother-in-law. Went to Sunday school for six or seven years, but has left for a year. Has gone to night school twice a week for the three last winters. Left a day school, where she had been for five or six years, to come here. Reads tale books for amusement, and can write. Is "not a very good one" at summing. Did multiplication and division, but has nearly forgotten them.

Sarah Ann Barton, age 18.—Has been a mender five years. It does not tire her eyes. Finds very little difference whether it is black or white. It all depends upon the fineness. Has set wages, 8*s.*

Mrs. Potter.—Is overlooker of menders here. Takes girls for this as early as 13, but they are no use under. A girl of 12 or 13 is two or three months before she is useful, and she does not reach the average for a year or two. Mending is the most difficult work. Some prefer white, some black; thinks there is not much difference.

Mr. Joseph Richards.—Manager of the finishing department here. The whole of the work necessary for the manufacture of lace, from the winding to the completion of the finishing, is done on the premises.

The time and the number of persons occupied in making and finishing an average piece of good fancy lace 30 racks in length are as follows:

In the Factory.

Wood winding	4 girls,	1 day.
Wood warping	1 man,	1 „
Threading	1 lad,	$1\frac{1}{2}$ days.
Brass winding	1 „	$1\frac{1}{2}$ „
Draughting	1 man,	2 „
Punching	1 „	2 „
Making	2 men,	2 „
Mending	1 girl,	4 „

Finishing.

Dressing	6 girls,	2 hours.
Drawing, clipping, &c.	24 „	1 day.
Mending, carding, and finishing	12 „	1 day.

Thus, taking a day's labour of a single person as a unit, the proportion of labour in the factory to that bestowed upon the lace afterwards is as 20 to 37 as near as may be.

Some pieces of the same length would not take half that labour in finishing; some, such as this (*specimen shown*), would take 4 or 5 times as much, the excess being chiefly in the clipping.

The proportion, however, will vary indefinitely, both from accidental circumstances and from the labour which is required in one part being sometimes on that very account less in another. The above statement is given as affording an illustration of the facts as near the truth, in the ordinary course of things, as it is possible to give.

In reference to the above statement it must be observed that the "mending," *i.e.*, the "rough" or "brown" mending, there treated as part of the factory labour, is subsequent to the making of the lace on the machine, and therefore does not fall within the present Act. It is in fact often done by females away from the factory. A deduction of the four days required for this purpose from the first branch of labour and its addition to the other alters the above proportion to that of 16 to 41.

Also the "draughting," *i.e.*, of the designs, and the "punching," *i.e.*, of cards, by means of which the pattern is communicated to the machine, are processes in no way essentially connected with a factory, and which I have seen carried on in a warehouse, and in part of which processes young persons may be and are employed. The further transfer of labour from the regulated to the not necessarily regulated department of lace making which this may involve further alters the above proportion to that of 12 to 45; and in the possible cases of winding and threading being also removed from a factory, the difference would be still further increased.

MESSRS. THOMAS HERBERT AND CO.'S LACE WAREHOUSE, HOUND'S GATE, NOTTINGHAM.

Mr. Thomas Herbert.—The question of submitting a business of so peculiar a kind as that of lace finishing to legislation in any way is one of great difficulty. On grounds of humanity, as well as prudence, we hold that as regards the young their labour ought not to be carried to such an extent as will injure either their bodies or their minds. But it is our belief that this is not or but very rarely the case. As regards our business, which consists of finishing fancy silk and cotton lace, and employs but very few except adults, we speak with confidence. Our regular hours are moderate, and seldom and only on very special occasions exceeded, and then rarely for more than a couple of hours, and for children never under any circumstances. There are undoubtedly occasions when, owing to sudden pressure, for instance, for shipping orders or a run on one particular article, the hours are in some houses such as, if continued for any length of time, would be injurious, but these occasions are, as we believe, so rare as to render them practically harmless, while at the same time they may be of the greatest convenience to the employer, and enable him to retain custom which would otherwise find its way to places where manufacturers are not subject to equal restrictions, as to France, which is now receiving from this place a large supply of the most improved machinery, and the most skilful hands. Any restrictions on the labour of the young, so stringent as seriously to hamper the manufacturers here, would tend to draw away a still further amount of business. In applying any regulations, therefore, the greatest caution is required, especially considering the tendency of legislation to become excessive. But, admitting the safe limit not to be exceeded, there still remains a great difficulty in applying legislation to the labour employed here in warehouses, which is of a kind that can be almost equally well, and is to a great extent, carried on in private houses either kept for the purpose by mistresses or in which mothers work with their own children. Assuming the warehouses to be regulated, and assuming it also to be possible, though it might be difficult, to place the houses of mistresses under effective control, the tendency would be to scatter the work still further into houses absolutely private, which I apprehend could never be reached;

409

Lace Finishing.
Nottingham.
Mr. J. E. White.

and I do not know that there would be much difference in a mother and a mistress in exacting work from children under her control if an excessive amount of work were imperatively required. The pecuniary interest of the mother would be at least as strong.

A difficulty of this kind is found in legislation as applied to lace making in which some of the processes, as winding, in which the labour of the young is required, may easily be, and have in some cases been, removed into rooms in neighbouring houses.

But, in one respect, restrictions on lace finishing would be more inconvenient than in the case of lace making. On this point we can speak, as we make as well as dress and finish our own lace. Lace making can be and is carried on with much more uniformity than dressing and finishing. A lace maker cannot comply with the demand in time, and therefore cannot conduct his business successfully without keeping a considerable stock in hand, even if he make fancy lace, in which he is exposed to the risk of loss from the change of fashion. The finer the material and the more elaborate the pattern the longer is the time required for producing it, as the machinery being more complicated must on those accounts move more slowly, and even then there are many more stoppages from breakage than in the plainer sorts. When the lace is made it may be kept in stock in the "brown" or "rough" without any loss beyond that arising from the change of fashion; but when it is once dressed and finished the material itself deteriorates by keeping, losing colour and freshness; consequently lace is finished only when there is occasion for immediate sale, the result of which is to throw on the finisher a pressure more variable and sudden than that which falls on the maker.

Again, taking lace as a whole, the labour employed in making is less than that employed upon the material afterwards. In the case of plain net, the simplest of all kinds of lace, the number of hands employed in winding, threading, and working the machine is probably about equal to that of the hands employed upon it afterwards; viz., in rough mending, dressing, cutting the pieces, folding, banding, and facing (omitting the bleaching or dyeing, which falls under a different business). In proportion to the elaborateness of the ornament so does the number of hands required to finish lace increase. In lace of the kind which we make, viz., coarse sorts and fancy cotton, it takes, we should say, from three to four times the number of hands; in more fancy kinds it may take, perhaps, from 12 to 20 times the number of hands to finish that it does to make a piece of lace.

Restrictions on the labour of children would affect the business of lace finishing in only a slight degree as compared with any on that of young persons; but as regards the children themselves, any serious diminution or entire loss of their earnings might make the difference whether their families were able to support themselves or were thrown upon relief.

We advance these objections not from an unqualified objection to any legislation, but from a feeling that things are very well as they are, and that any interference might involve an unknown and perhaps serious risk.

[This statement was concurred in by another partner present at the time, and was stated to express the views of the firm.]

MR. GEORGE LIBERTY'S FANCY LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

A new warehouse, with large airy rooms, clean and well arranged.

Mr. George Liberty.—Has a rule not to employ children under 12, but above that age they are well suited to the work, which is light, and ought to be allowed to work the full hours. Could not arrange so as to employ any for parts of days. If the labour of girls from 12 to 13 were taken out of the market it would be a loss to the trade to that extent. But a prohibition of night labour by all under 18 would be desirable. There is no doubt that even with that restriction the work, as a rule, could be done between 6 and 6. There would be an occasional inconvenience, and an order might have to wait a day. As a rule, fair time is given for orders, with an exception sometimes in the case of shipping orders. The work is asked for "as soon as it can be done." Still any restrictions on labour in warehouses would undoubtedy have a tendency to drive work out from them into the private houses, or any places free from restrictions. It is no direct gain in money to him to have the work done on the premises, as he pays the same amount for wages here as he would pay to the second hand mistress for the same piece of work. In addition to this there is the cost of the rent for the work-rooms, gas, and heating, and the overlooker's wages, which is considerable. The gain is in being able to keep the patterns private, and the material clean and fresh, as well as having the work more under control. The new warehouses are suited for this purpose. Cannot see that any restriction such as above referred to would advance the price, at any rate so far as to draw trade away to France. What is gained by long hours of labour is lost by the loss of energy in the workpeople. There is the carcase but not the spirit. Has tried the Saturday half-holiday for three years and finds it answer, and the hands are perfectly satisfied. Believes that the hosiery warehouses give the Saturday half-holiday.

Eliza Freeman, age 14.—At lace work since 7 years old. First went to a mistress as a learner. There were six girls all about witness's age. Worked at Marriott's warehouse at drawing, and also at bonnet fronts. The hours were 8 to 8, or, if there was an order, till 9. They pleased themselves about staying, and most left at 8. "Guided in" to the gauffring machine at Wild and Bradbury's. It was very hot, and gave her the headache most days, and made her sick. Was very tired at nights. Has had a "constitutional" cough since she had the measles at 2 years old. (Coughs often.) Has scarcely ever been to the dispensary, but mother doctors her. Clips and scollops here. Hours are 8 till 6½, or if busy till 9. That happens during about three months together, but not regularly. Gets about 7*s.* a week. Has made 9*s.* Has been at Sunday school all her life, at night school last winter, and at day school till she went to work. Can read easily out of the Bible and Testament; even the hard words. Knows what it is all about. Left Trinity Sunday school six months ago to go to the High Pavement (Unitarian) to learn writing. Can write (neatly, but very slowly). Has just begun summing at the same school.

Ellen Charlton.—Was at a mistress's for four years. The hours were always 8 to 8, and dinner at home at 1. There were some quite little girls there. Goes to school on Sundays, but never to a night school. Was at a day school when she "was a little un." Says she can read (only knows a few letters). Has headaches.

Emma Bell, age 12.—Holds her work (clipping) close to her face, but says she is not shortsighted. Here a year.

Lace Finishing. Nottingham. Mr. J. E. White.

MESSRS. JACOBY AND BERENHART'S LACE WAREHOUSE, BROADWAY, NOTTINGHAM.

A large new warehouse, free from any crowding, and provided with suitable washing places, closets, &c. The rooms lofty and the air fresh.

Mr. Heirom Edwin Morrison.—Is manager here. In very busy seasons they have had occasion to work to 9 or 10 p.m. for some weeks together, from one week up to six weeks. In the busy quarter till 9 for six or seven weeks, and till 8 for the remaining six or seven, is usually sufficient. Formerly parts of the work were carried on much later than now. Goods have been packed by men up till as late as 2. They never work after 10 on any account now. If the work cannot be done so, it is given out to women, who get it done somehow; but it is not so well done when given out. Could always get many more hands than are needed either in doors or out, and that without giving higher pay than the work will fairly bear.

Mrs. Brailsford.—Is overlooker here. Never finds any difficulty in getting girls at any time of the year, even in May and June. Believes some warehouses do.

Eliza Butler, age 10.—"Joins," and has done so here for six months. Before that mended brown net at Butler's factory. Got 2*s.* 6*d.* and 3*s.* a week at that. It made her eyes ache a bit, and a little mist come over them. Has less headaches now than when she mended, but has always been subject to them from before she went to work.

The hours here are from 8 till 6, with an hour for dinner at 1, but no tea. Never stays beyond 6 herself, because she lives so far off. The other girls stay for overtime a good many days a week. That is, she believes, till 9 or 10 or 8. They then have half an hour for tea at 5. They have tea much oftener than not. The joiners stay as well as the elder girls. Always goes to school and church on Sunday, never to a night school, and only went to a week-day school for a short time. Can spell a little, but not write, and never tried any sums. Does not remember hearing of Peter or such names at church, but thinks she did of the Gospel.

[There is not a shade of colour in this girl's face, but she was by her own account weakly as a child.]

Eliza Webber, age 16.—Is a "finisher." Her hours are from 8 till 6, with an hour for dinner at 1, but without tea, unless they stay overtime. If they have tea, which is then at 6, they stay till 9 or 10 or 8, 10 being the latest. Has stayed overtime in summer for several weeks together, and more or less for nearly four months. Stayed also when she was a joiner. Has been here three years. Has been to a Sunday school regularly for many years, and got many prizes for not missing once for a whole quarter. Being late once or twice will not keep you out of a prize, but more would. Out of 200 or 300 girls at her school perhaps five or six in a quarter would get a prize for being regular, and there were several small prizes for those who were not quite so regular. Can read the Bible without spelling many words. Has learned writing, and learns now on Sunday at the Unitarian Chapel, but has not got to the summing class yet. Does not know what 9 times 9 is.

MESSRS. VICKERS AND SON'S LACE WAREHOUSE, WEEK DAY CROSS, NOTTINGHAM.

Jane Elizabeth Thornton, age 17.—Here four year. Hours are 8 till 6, sometimes till 9. Is busy for about eight weeks in spring. Dinner at 1, an hour; at home or in the tea room. Tea at 5; half an hour. Has 6*s.* a week, and 1*d.* an hour for overtime. Has been at Sunday school since 8 years old. Goes to a night school twice a week most winters, and was at a day school from 4 years old till 11, when she went to work. Can read anything, and write, and do multiplication. Has read English history, and remembers William the Conqueror. Mends. Has good eye-sight.

George Ford, age 14.—Paints patterns in the design room, and will learn to be a designer in time. Hours are 8 till 6. If busy till 9. An hour for dinner, at 1. Has been to Sunday and day school since he was little, *i.e.*, about 4, but not to a night school. Can read anything, and has read many stories. Can write and do reduction.

Mr. William Vickers, Junior.—The numbers given in the return of persons engaged in this house give no idea of the numbers actually employed by it. Some hundreds are kept in pretty regular employment out of it, and these again, probably, in busy times, give out work enough to give partial employment to some hundreds more. These persons are spread over a very wide extent of country, some having been at the distance of as much as 80 miles from Nottingham. This mode of employment is not confined to this house alone. It is, therefore, impossible to form any even approximate conclusion as to the total number of persons actually engaged in lace finishing.

MESSRS. MILNER AND CO.'S LACE WAREHOUSE, STONEY STREET, NOTTINGHAM.

Mr. Milner.—The firm usually employ about 100 females, from a third to a half of them under 18, but no children. They are all gone now, being on short time only. The hours are from 8 till 7, or with overtime in April, May, and June till 8, 9, or 10, but not beyond 9 unless for dispatching orders, as it does not pay to work longer than that, the girls being then so tired that they cannot work to any purpose. The effects of any limitation of hours would fall on the manufacturer alone. The customers would not adapt themselves to the change by ordering a minute sooner, but the manufacturer would have to speculate more by keeping a larger stock, or else still more female labour would be drawn into Nottingham to work in the busy time, and to lie idle all the rest. The principle of the business is to keep as little stock as possible, as if manufacturers finish by anticipation they sink their capital in wages, instead of keeping it productive in their own hands. Still, for the sake of keeping their people employed, his firm do prepare and keep a stock, but not of white lace, as that loses colour, if it be not made of good material, and well prepared and finished; and even then it does in some degree, though much less. Otherwise lace, though finished, does not deteriorate in material; but if a stock is kept there is the risk of loss by change of fashion. Also for different customers or markets lace must be made up on cards of different lengths, or with or without facings, or without cards at all, as for those markets for which it is charged at the custom office by weight, so that if finished by anticipation it may have to be undone, and the labour of making up doubled. Expense is often caused in this way. In good years the different markets, the home, German, and American, with their different seasons, follow one another so closely as to spread the work pretty evenly all over the year, though spring is the busiest time; and then the hours of work are not so long as to be injurious, as there

are always plenty of hands to be got, even in the busiest times, and he prefers taking others on to working over long hours. But those who give orders will always be satisfied at once, at however short a notice, as Nottingham has always been an over producing place, and there is always a supply ready to answer any demand, when it sets in, without forcing customers to wait.

MESSRS. ———'S LACE WAREHOUSE, NOTTINGHAM.

The books at this warehouse showed some very curious results as to the amounts earned at piece work by different hands, on work of the same kind simple enough to be often done by very young children.

The wages of a fair workwoman averaged fully 12*s.* a week, of others 16*s.*, while others who had been at the work for years earned but 5*s.* or 6*s.*: one woman earned 4*s.* 11*d.*, another 5*s.* 2*d.*, another 6*s.* 4*d.*; while a girl of 11 earned 4*s.* 10*d.*, one of 13 and another of 14, 6*s.* 6*d.* each, and one of 16 11*s.* 9*d.* in the same weeks.

All names are left out by request.

Mrs. ———.—Is overlooker here. For the last three weeks they have taken into the warehouse about 10 young girls from about 10 to 14, in addition to the elder girls and women hitherto employed. It is only an experiment, but these young girls do the work so well, in many cases better than the women, and are so much more manageable than the elder ones, that they will probably be retained. They receive as wages exactly the same amount as would be paid for the same piece of work if given to a woman who employed girls to do it at home.

At first the little girls were disorderly, but in a few days became quite quiet. Nearly all had been at the work before.

Has often seen little girls, apparently about 9 or 8 years old, in the streets as late as 9 at night, and on stopping them to ask, has found that they were coming home from lace work in private houses, which they named.

The little girls who have come here give the same account of their hours.

———, age 10.—Clips. Hours are from 8 till 7. Dinner at 1, an hour. Goes home. Tea at 5, half an hour. They go home or stay here, as they please.

Does piece-work. Gets 4*s.* 6*d.* a week. Was at Carver's (a private house) for three years. There were two rooms full of little girls. All clipped.

There were two little girls "going 6," and one 6. The others were older. Their hours were called from 8 to 8, and on Saturday from 7 to 4. But they stayed till 9 "a deal oftener" than till 8. Sometimes till 9½. Once when they had an order, till 10.

She had set wages there, 2*s.* 6*d.* a week, and ½*d.* an hour for overtime. Has taken home 3*s.*, but not more. Some got 1*s.* 3*d.* For the first month they did not get anything. Then about 6*d.* The girls of 5 and 6 years got 8*d.* and 10*d.* That was the most.

Dinner was from 1 till 2, with half an hour for tea; but if they were busy they dined at 1½, and began again at 2, and made haste with their tea, and reckoned for overtime.

She had had typhus fever and has been badly ever since, and often had to stay away for sickness and headaches. Then her wages were taken off.

Goes to school twice every Sunday and to chapel afterwards. Never went to a night school. Was at a day school for a year till she went to work.

"Used to could" read nicely, and was a good scholar, but it is so long since that she forgets it all now. (Breaks down in words of three letters.) Never tried writing or counting figures.

——, age 13.—Has been at lace work "all my life," at home with mother. There were no other little girls.

Mr. ——.—I and my partner are finishers of fancy lace articles, such as shawls, falls, lappets, &c. I was employed for several years in a large fancy lace warehouse, and understand the business well.

In our work children are of no use under 8 or 9 years old. It would be a good thing if children were obliged to go to school, but we could not spare them during any part of the days. We should give them up altogether, and get the work done in houses.

If girls under 18 were not allowed to work at night we might, perhaps, do the work by getting them to come earlier than the present hour, viz. 8. If we could not, we should give up these girls too, and employ only older hands, paying them regular wages in the slack times, and so keep a sufficient number to do our work in the busy time. The work must be done somehow.

It is the custom of the trade that if an order is not sent by the day named, often by return, it may be cancelled and the goods sent back, even without any express agreement to this effect. The manufacturer dares not refuse to take them, or he might lose future orders.

I think there is no right to limit the labour of girls above 12 or 14. Much more money is made in Nottingham on lace by girls between the ages of 12 and 20 than by all the women put together.

If the warehouses were closed at 1 on Saturday it would give the girls the recreation which they want, and enable them to profit by the Sunday schools, and it would not injure the trade.

[The name of this manufacturer is left out by request. The firm is not that spoken of just above.]

Mr. George Goodwin.—Is a lace manufacturer in Nottingham but employs no children or young persons. Children begin to work at lace in Nottingham as soon as they can use their fingers. This morning, just at 8 o'clock, saw a little girl of apparently from 4 to 5 years old going to work with a little bag for her dinner, and often sees them as young as this in flocks in the same way going to and from their work. Has often seen very young children coming home as late as 9 or 10. From 8 till 7 are the regular warehouse hours. But women will keep girls of 14 or younger at work long into the night. A woman will go through anything to finish an order, as if she did not there would be a risk of her losing her employment. The wages of young children in the houses are very low, from 1*s.* to 2*s.* 6*d.* a week, according to their ages. They do not work so young in warehouses. Their employment and way of life make them very forward, and as soon as they get about 7*s.* a week, they often make themselves quite independent of their parents. It will be impossible to learn all the facts in this employment by any inquiry, however full.

MR. JOHN NICHOLSON, LACE MANUFACTURER, PLUMPTRE STREET, NOTTINGHAM.

Thinks that all matters of trade ought to be left as far as possible to themselves, and that the plan followed in England for securing the welfare and education of the young is not the right means of gaining the end; therefore does not wish to assist it. Thinks however that no child ought to be allowed to be employed till a certain age, say 10 or 12, in which respect the North American plan is much

Lace Finishing. Nottingham. Mr. J. E. White.

better, both in order to secure a certain amount of education and to allow of the limbs and strength being developed, as early work prevents both these results. There can be no healthy growth of body in children confined to work at an early age, and as for their minds they are much corrupted by being thrown in contact with elder companions, girls of 14 or 15 being perhaps more objectionable than any. As it is, a manufacturer must employ young children, as he would be otherwise at such a disadvantage as compared with others who will avail themselves of their labour at the lower rate. For a like reason he must employ them for unduly long hours when trade requires it, and the wholesale houses in London and elsewhere push for orders, though long hours are in themselves very undesirable and leave no time for any education except on Sundays, and possibly night schools, and children even then are tired and sleepy and unable to profit by it. Employs himself only girls, 12 or 14 of them between the ages of 7 and 13, and all but about one under 18. The hours are 8 till 7, with an hour for dinner, and unless they leave at 6½, half an hour for tea. In the two busy seasons, however, these hours must be exceeded, sometimes till 10 o'clock or so ; but he has a great objection to that, and only does it because he cannot help it. Much prefers gaining the time in the morning. It would not at all interfere with the trade if all manufacturers had to let the young go at a fixed hour, say 7.

MESSRS. COPELAND AND CHAPMAN'S LACE WAREHOUSE, HIGH PAVEMENT, NOTTINGHAM.

Owing to the state of trade at the time of my visit but a small number of hands were employed here. I was told in the principal work room that 30 children and 10 adults were employed there in summer, and that it was then extremely hot. It appears, from the statement of one of the firm (*see* below), that the number of children employed there, the only room in which they worked, had much exceeded this. The room, of the closeness of which I have heard elsewhere that the girls complained, was very low and narrow, but with windows along nearly the whole of one side and at one end. Allowing, however, the dimensions to be 38 × 16 × 8½ feet, which I believe to be some way above the actual size, not having had the opportunity of actual measurement, and taking the minimum of 40 persons, this allows but 140 cubic feet for each. The hours are unusually short and regular.

Mr. Copeland.—His firm finish nets and falls. They have only taken to employing children for the last twelvemonth, and that in a branch (threading hair nets with elastic) which has now fallen off and perhaps may not return. If it does, and children were required to attend school for part of a day, they would not employ elder girls for that work, but try to get double sets. As regards the work itself that would cause no difficulty. The other regular branch of their business could be done without girls under 18 working after 6. If necessary they could begin earlier than now (8).

Clara Addicott, age 12.—"Bodkins," *i.e.* threads nets with elastic (a very light work). The hours are 8 till 6, never longer. An hour for dinner at 1. Tea after work. Has been 6 years at the same Sunday school, but never to a night school, and only for six weeks to "Mary's" (Saint) day school when about 6 years old. Can read, not a deal. (Reads easy words without spelling.) Can write, not well, on paper. Could sum "only the hundreds," *i.e.* those that have three lines. Before she was here was first at an artificial flower manufactory, then for three months at a bonnet front place. Worked with one young woman only. Had no regular hours, as the young woman had the orders to finish as she could. But went at 8 a.m. and generally left at 9 p.m., sometimes at 10, or 10½, or 11. Once was obliged to stay till 12, but mother let her leave next day in consequence, and she then came here on New Year's Day. She had to work by all the machines and found it very hot, but her head did not ache, and she did not feel sickly. Had an hour for dinner. Has just come back to work from the "sore throat fever." (Shudders constantly, and her skin is roughened and face colourless with cold.)

DOBSON'S, LACE FINISHER, GREAT FREEMAN STREET, NOTTINGHAM.

This room is a long attic over part of the dressing room, and very hot. There are five girls under 12, 14 between that age and 18, and six women. The hours are short and regular, and the children seem well cared for, and are happy looking.

Elizabeth Lever, age 9.—Hours are 8½ till 7. Never later. Dinner 1¼ hours. Tea at 4½, 40 minutes. Has got 1*s.* 7*d.* a week at the most. Has been to Sunday school since she was 3 or 4, and to a day school till she was 8, but never to a night school. Can read (reads a stanza well). Can write a little, and do sums if easy. Names Peter as an Apostle.

MR. JAMES HANNIBAL'S LACE WAREHOUSE, PILCHER GATE, NOTTINGHAM.

This is an old dwelling house but now used as a warehouse. The rooms are small but not yet overfilled, though it is intended to take in more hands for bonnet front making. The rooms are too close for this purpose, which requires much ventilation.

Mr. James Hannibal.—Does not care about children under 12. His busy months are about three, from May to July. Never begins then before 8 or works later than 9. At other times 12 hours is enough. Separates the girls as much as possible, because it is not healthy to have more than a few together.

Mary Ann Goddard, age 14.—Draws. Has been in two lace warehouses (Leedham's and Sargent's), for four or 5 years. The hours were 8 to 8, not longer. Here they are 8 to 7, with an hour for dinner at 1, and half an hour for tea at 5. They have not been busy since she came, *i.e.* only a few weeks. School on Sundays regularly, and to a night school two years ago, but never to a day school. Reads in the Testament at school. Has specks in her eyes. Was nearly blind two years ago, but her eyes were bad before she went to work, especially in the winter.

MESSRS. T. J. BIRKIN AND CO.S, LACE MANUFACTURERS, BROADWAY, NOTTINGHAM.

Lace Finishing.

Nottingham.

Mr. J. E. White.

This is a large new warehouse, employing, I am told, probably over a hundred females of all ages in a busy time and much fewer in a slack. The firm, however, which does not include Mr. R. Birkin senior, whose evidence is given in the Report on the late inquiry into Lace Factories, think that a mischievous use is made by Parliament and other humane persons, otherwise unacquainted with the facts, of information laid before them, and beg therefore to withhold information.

Isidore Bricquot.—Is a Frenchman formerly engaged in the lace trade at Cambray ; but with his wife has been in Nottingham for about 12 years, still engaged in lace work. Lace is finished in France by women and girls in much the same manner as it is here both in warehouses and private houses. The day's work there is 12 hours, from 6 to 6 in summer, and from 8 to 8 in winter, and this, so far as he knew, was scarcely ever exceeded. Used to go to St. Quentin almost every week, sometimes twice a week, in the course of his business to sell lace and take orders, and was often in the warehouses there. They were not so many or so large as in Nottingham. Does not remember seeing any girls under 15 in them except a few errand girls. There are not near so many children employed in France as here. They begin to learn lace work at home or in houses at 10 or 11 years old perhaps, going to school till then.

In factories in France all boys and girls under the age of 16 are obliged to go to school every day from 11 o'clock till dinner time, and the law is the same for warehouses. At St. Quentin a girl beginning lace work would get half a franc a day, or 2*s.* 6*d.* a week. A girl of 15, 16, or 17 would get about double this, and when she became a really good hand 10 or 12 francs, *i.e.*, from 8*s.* 4*d.* to 10*s.* a week. Four or five years ago the wages had risen beyond this, but when he was there three or four months ago there was but little doing. The business of St. Quentin is chiefly in plain lace, silk and cotton. The work was much more regular than it is here, and there was generally something all the year round, as he found here when he first came, but for the last three winters there has been nothing here. Does not know much of Calais, Lille, Lyons, and other seats of the French lace manufacture ; but believes that the goods are sold there at the same rates, and supposes therefore that the wages are about the same. An English friend of his at Calais, whose wife took out drawing, clipping, and scolloping there, came over to Nottingham about four years age to carry on the same work, but found that they could not make so much by it as at Calais, and so after a couple of years went back there again. Believes that in France only men and women work in the dressing rooms, as the work is too much for the young.

Fanny Bricquot (wife of last witness).—Was born and brought up at Cambray, where she did lace work, as she does now here. Mending, drawing, clipping, and scolloping, as given out to women here, are worse paid than in France, and will not make a living unless hands are kept. Here the best work is naturally kept for the hands in the warehouses, who are no doubt better paid. The work given out is generally only of the more tedious and poorer kind. Plain net mending is as difficult as any work, but here it is almost the worst paid. Has often tried, and cannot get more than 2*s.* 6*d.* a week at it. In France she has often and often got that (3 francs) in a day at it, and could easily get 12 or 14 or 15 francs, *i.e.*, from 10*s.* to 12*s.* 6*d.* a week. For clipping the rate in Nottingham is $\frac{1}{2}d.$ a thousand clips, a clip being two snips with the scissors, one at each end of the threads which have to be removed. In France the rate is $7\frac{1}{2}$ centimes, *i.e.*, $\frac{3}{4}d.$, for the same number of clips. Keeps from 6 to 12 girls herself here, between the ages of 10 and 14, but has no work now. The hours are from 8 till $7\frac{1}{2}$, with an hour for dinner and half an hour for tea. Sometimes, if she has work which must be finished, they stay till 9, but never later.

MRS. SIMPSON, WHITE COW YARD, NOTTINGHAM.

Employs women both in her house and at their homes. Went out to lace drawing at a mistress's herself when just over $5\frac{1}{2}$ years old, and has suffered a good deal from the hard work. Is now quite a young woman, only 30, but is in weak health, and can hardly see to work for an hour, and suffers a good deal with her eyes. At her first place her regular work hours were from 8 till $8\frac{1}{2}$ or 9. At 6 years went to a second mistress, and at $6\frac{1}{2}$ was put to fancy net mending, which is very "dree" work. When not more than 8 was very often kept up at work till 12 or 1, and that for two or three nights together when trade was brisk. Used to take her victuals for the week with her, and sleep at the mistress's house, only coming home from Saturday evening till Monday morning. They were supposed to have an hour for dinner and half an hour for tea, but they generally had to be at work under the hour, often under half an hour, and sometimes had only just time to swallow their dinner and begin work again; and in the same way with their tea. In fact, they had to get their meals as they could, according to the work; but what was taken from the meals was reckoned as overtime. She was very often done up with headaches and weakness, and it made her eyes smart and turn very bloodshot. Her mother did not know that she (witness) was worked so hard, but she noticed her getting very pale and thin looking, and her eyes getting very bad. The way her mother found it out was by the mistress wanting witness to go back on Sunday night, to have her up at 4 or 2 on Monday morning. Her mother then took her away and put her into a warehouse. She was then only 10, but felt quite a woman, having been out so long and being able to work so. She had never got any fresh air, and was so tired that she did not care to move out on Sundays or to go to school, though she sometimes did in the afternoon, or to chapel in the evening, but then would fall asleep. The mistress had several children of her own, and worked them just in the same way. The mistresses were many of them very hard, quite tyrants some of them. There are many more now, and much kinder. If one mistress is not kind a child can be sent to another now , but that was not the case formerly when they were fewer.

Was in several warehouses. The work was chiefly mending, carding, and jennying. The drawing was done in the houses, and there was not much clipping or scolloping ; so there were not many children in the warehouses. The hours were usually called from 8 till 7, but in some warehouses she has often worked till 11 and 12 p.m. for weeks. In one (naming a very large place), for a month together ; and all the others stayed as late too. They worked till 11 most nights. But she was only there three months. She could not stand the heat. Warehouses, however, are better than the private houses, because the girls do not sit so close together, but they (warehouses) are heated by steam, and that, with so many breaths and the quantity of gas burners, perhaps 40, makes them very unwholesome. When you are sitting on late at night it is dreadful. The heat affected her and the others too very much, particularly in the head. Several used to faint away

Lace Finishing.
Nottingham.
Mr. J. E. White.

quite when it was very hot late at night. Has done so herself. At other times they felt very faint, and used to send out to get a sup of brandy or something to revive them ; but this had to be kept secret. In some warehouses the girls "look that pale," but still they like to work such long hours to get more money to get clothes with ; they are so fond of dress. The warehouses ought not to be allowed to work so long.

When she was about 16 she was very ill. She was dreadfully short of breath, and had a bad cough. The doctor said she wanted rest and fresh air, and plenty of port wine, which she had, and sent her into the country. She got better, and went back to work, but never feels well even now. By 20, when she left warehouse work, she was so shortsighted that she could not tell a person coming in at the other side of the room. She can see nothing now without looking quite close, and even then if she works for an hour her eyes smart so she has to stop. After she has worked a little a person meeting her says, "Oh, what a cold you've got in your eyes." Before she went to work at all she had a very strong eye, and was quite longsighted. Is quite sure that it was beginning so young and working so hard at such "dree" work which broke her health down and her eyesight too. Has found her eyes fail her more just in the last year than ever, though she cannot do much now. Employs no children, but often has girls as young as 7 come to ask for work, particularly on Monday mornings.

[The witness's pale face and weak eyes, from which she had more than once to wipe the water, as well as a weak cough, seemed to show the truth of her account of herself, though she spoke without any apparent wish to complain.]

Ann Camm.—Began lace work, Brussels and fancy net, and silk edgings, at a mistress's when she was about 11. The time was called 60 hours a week, all beyond that being reckoned as overtime. Has often made 14 or 15 hours a day regularly, and as much as 85 hours in a week. The regular thing was 20 hours a week over, and if it was only 15 they reckoned that quite a bad week. Cannot at all reckon how often it was more than 80 hours in a week. For the first month she was a learner, and got nothing. Then she got 6*d.* a week. After two or three months she was raised to 1*s.*, and so on. At the end of a year she was getting 1*s.* 9*d.* They used to take their dinner with them, or have it sent. They should have had an hour for it, but often did not have more than a quarter of an hour or 10 minutes. Their tea was often shortened in the same way. They used to take their breakfast with them too, and count the time they were at it, and take it from their 10 hours. They nearly always worked till 10 or 10½ p.m. It was quite a treat to go at 8 and leave off at 8. Sometimes their mistress went to bed, setting them so much to finish, which kept them till 1 or 2 a.m. They then went to bed in spare beds which the mistress, who was a widow, had ready for them. There were 5 or 6 girls, some younger, some older than witness. The youngest did not stay to sleep. Has often dropped asleep in her chair, and so have the others. After a year she left for a place where she was offered 2*s.* 6*d.*, and had regular hours and meals ; but she went back after a while to her first place, and had to work in the same irregular way as before. By when she was 15 she had made without overtime as much as 3*s.* 6*d.* When she was about 13 she had to give over work for a bit, because she could not see any longer. Used to see things like a mist before her eyes. By 14 was quite shortsighted. At 15 went into a warehouse, and was in three. The hours were called from 8 till 7, but in busy times she had always to stay till 9. Had not to wait for her meals there to speak of. Works at home now. Would not know me again if she saw me ; would "have to come nearer a bit for that."

[This witness sat during the whole time facing me, at a distance of about seven feet, the lights shining full on my face. Though a comparatively young woman (stated to me afterwards to be about 30, though she looked nearly 50), she looked utterly worn out, her face wrinkled as with age, and her eyes glazed and watery. This may be owing no doubt in part to distress arising from want of work or inability to do it well, as well as from the exhaustion of former overwork.]

Louisa Taylor.—Went to lace drawing at a mistress's before she was 6. Her regular hours of work were from 8 in the morning till 9 at night. Never left before 9, but often stayed till 10, when she first went, but not much longer. When there was an order they all often had to wait for their dinner, which should have been at 1, till 2 or 3 or even 4. That was very often. They used then to have to swallow their tea as they could, and get to work again directly. It was seldom that they had half an hour for it. The mistresses used to keep a cane then to make the children work, and beat them on the hands till the blood would run down. Has seen that. Believes it is not the custom now. Went to a warehouse at 11 years old. The hours were fairly regular at the two at which she was. They were not often after 9 p.m., except on Saturdays, then they would be to 10, to get orders off if wanted. Her sister (Mrs. Simpson) had to stay later to mend the net, fold, and finish it. That is not the case now on Saturday nights, because the vans will not call for goods after about 7½, and if goods are sent after that they must be sent by the express train at 10, and much more carriage paid.

[This witness is a young woman, stated to be about 25.]

Mary Ann Simpson.—Went to a lace mistress at the age of 7. Her hours of work were from 7 or 8 in the morning till 8 or 9 at night. There were about 20 children there altogether. They often stayed till 10 or 11 at night, and once all the night, *i.e.*, they worked on till 6 in the morning, and then lay down on the floor or anywhere till about 9 a.m. She was about 8 years old then. All the other girls from her age up to about 15 sat up also. When she was 10, went to a warehouse. Her usual hours there were from 8 till 7, or when they were busy, from 7 till 9.

[This is a young woman apparently just grown up.]

MRS. BRANDRETH, HOLLOW STONE, NOTTINGHAM.

Generally employs about two children, six elder girls, and 25 women, but has none here now, work being short. The hours are 8 to 7. Girls of 13 or 14 and upwards sometimes on special occasions stay till 9 p.m., but never later. Lets the women take home work, but never the younger ones. It would be a very good thing to have the hours regular. It would give work more to those who want it, and would not leave so many idle at odd times as is the case now. The long hours which children often work are no profit to any one, as they get so exhausted that they can do nothing, especially if so young as many of them are. Mothers very often bring children, particularly on Monday mornings, to ask her to take

Lace Finishing.
Nottingham
Mr. J. E. White.

them. Many are about 5½ or 6, to judge by their appearance. Last week a man (a glazier) asked her to take his child, "a sharp little girl, 5 last Friday." In the same week a woman brought her child, so little that she could not be above 5. It was the fifth or sixth time that she had brought her. The mother said that she had been out at work before, and that, no doubt, was true, for she took up the scissors and cut away in such a manner that she must, in witness's opinion, have been at it for at least six months. No doubt these children were taken to some mistress who would have them, though probably only a few are now taken so young. To her knowledge there are many very poor parents who send their children to school, and others, who earn much better wages, who send them to work very young and drink all their earnings.

Is certain that there are still many places where children are worked for very long hours, sometimes from 6 or 7 a.m. till 11 or 12 at night, but probably not so much just now, as trade is so bad, but they are even now, if there is an order, and they would be much more so if trade were good again. This, however, is a bad time for learning about them, as they are not wanted.

Went out to a mistress herself before she was 5, and "could not reach the door." All her sisters went when they were very little older. At her first place there was only a girl of 9 or 10 besides herself. Witness stayed there eight or nine months, sleeping in the house to be ready for work. Has been called at 4 a.m. and stayed up often till 1 at night there, soon after she went. She used to be so tired she could not stand. Twice at least she was kept up all night there and had to work next day. The elder girl used to be fetched home by her mother if she was later than 9 or 10 p.m. At her second place there were, after a while, towards 20 girls between the ages of 7 and 12 about. The hours were supposed to be from 7 a.m. till 9 p.m., but the girls often went at 6 a.m. and stayed till 10 or 10½ p.m., seldom later, but more often to those hours than anything else. Witness did four nets a day ; the price paid for each of which by the warehouse was 6*d.* She got 2*s.* a week for this. This mistress was very cruel and used to beat her with the tinned end of a fishing rod and has made her fingers bleed with it. The other girls were beaten with a cane, and one of them, a relation of witness's, had her back all covered with black and blue from it. Thinks that this mistress was as bad as any then, but there were others scarcely better, according to what other girls used to tell her of their being knocked about. There were so much fewer mistresses then to whom girls could go. The room was very damp, in a street near the canal, with a fire only in the very coldest weather, and a brick floor. This made their feet very cold, as, so as not to dirty the lace or floor, they had to sit without shoes. [I have often seen this.—J. E. W.] So they generally had colds or something the matter with some of them. One, a strong big girl, became a cripple from sitting so long on a short stool, which made her spread her feet out sideways till they began to grow in that way. She went to the Union and died, and her sister is now very stunted, owing, as witness thinks, to the hard work. Was at two or three warehouses afterwards, but had moderate hours and no bad treatment.

MRS. GILLESTHORPE'S, HALIFAX PLACE, NOTTINGHAM.

The mistress here, a person of more than usual intelligence, is in reality only an overlooker employing hands for the warehouse of Messrs. W. Marriott and Co. in a workshop adjoining her house, and therefore not free as to the management and amount of the work. The general appearance of the girls is far below the average, not so much in health, which is low elsewhere, as in dress and outward condition, and the mistress stated her belief that the hands employed here were probably some of the poorest. Some, who live at a distance, dine and most have tea in the work room, which is very narrow, only a few feet wide, though long, and with a fire.

Mrs. Gillesthorpe.—Usually employs from 30 to 40 women and girls of all ages down to 9, about 10 or a dozen being adults. The work is drawing, and the hours from 8 till 7½. When there is an order they must work till 9 or 9½, beyond which time she never keeps the young children, *i.e.*, under about 12, and if she can possibly spare them, she lets them go as much earlier as she can. The others, however, sometimes stay till 10 p.m., though never later. Sometimes the children themselves ask, "Please, may I stay," and then she lets them. The youngest get about 1*s.* 6*d.* and 1*s.* 10*d.* a week ; girls of 15 or 16, about 3*s.* or 3*s.* 6*d.*, unless they are very quick, when they may get about as much as a woman, *i.e.*, about 5*s.*, or at the most, 6*s.* Does not like taking children so young, but there are so many parents often out of work themselves in Nottingham that the earnings of the children are a great help, and mothers beg so for their children to be taken, and in busy times she is sometimes obliged to take whom she can get, and does not like to get rid of them afterwards. It grieves her to see such little children going out to work for all the day when they ought to be going to school or play.

But few of the younger ones can put their name to their work or even read numbers, though she wishes they could. Knows some young women of 23 or 24 or more in a lace warehouse close by who cannot read, but who having been brought up at lace work have had no opportunity of learning, though they are very anxious and try to learn at night schools or teach themselves. Had to leave school herself before she was 8, when her father died, to go to lace work, and only learned by a kind mistress, with whom she was at service for three years, teaching her on Sunday nights, and at Sunday school, and what she learned so either in reading or manners she never forgot.

The hours here used to be from 8 till 7, but some time ago some of the young men in the warehouse finding the confinement too much for their health, and thinking it caused declines, combined to get a half holiday on Saturdays for recreation, and the same was done in some other warehouses. Some well-disposed gentlemen, thinking that the girls were even more confined and suffered more from it, tried to get them a half holiday and they got it, but the hands had to work an hour longer every other evening in the week for it. They would sooner do this, however, than lose the half holiday, because it is so convenient and pleasant for those who have to work all the week. It enables those who have families to get their things at market, and all of them to get a little fresh air and rest, and to get their clothes and things ready for Sunday. However, the master did not like the half holiday, so now they work till 4½ on Saturday, and add half an hour to each of the other evenings, which they like better than not having any time on Saturday. Work being so scarce elsewhere, they must be content. Is sure a little holiday is no loss to the masters, as the people work so much better.

Was in a warehouse up till about seven years ago, when she married. Worked there regularly from 8 a.m. to 10 p.m., summer and winter both, *i.e.*, nearly all the year round, except a few nights, and on Saturday nights till 12. There were other warehouses, she believes, that worked till 12 on Saturday nights also, though all did not, only odd ones ; but now goods cannot be got off so late. There were several girls under 18 with her, and she was so herself ; there were others younger, one perhaps of 12, two of 14, and so on. It was quite the regular thing then to see the warehouses working till 9 or 10

Lace Finishing. Nottingham. Mr. J. E. White.

p.m. in the busy times, and women, girls, and children all worked together in them, though there were fewer young children there then than there are now. Since then, *i.e.*, about seven years ago, when they first talked of "the panic," trade has never been generally good, though some houses have done very well, and when they have orders they must work any hours, but she has never herself seen one working after 10 p.m.

When she was at work in this way, she used to get quite done and wearied beyond measure by Saturday night, and had no inclination to go out or do anything but rest. When they are at work to the week's end up to Saturday night, they are not able to enjoy rest and worship on Sunday. If they had the rest on Saturday they could. Has heard many of the "good inclined" say that if they went to worship on Sunday they were too tired to attend as they would wish, and has often herself in consequence not gone in the morning, though she loves to go then, more than at the night even. Never got a walk except on Sunday afternoon, and in the week was often so wearied for want of a walk that she could not eat her dinner. Sometimes if she had to go out of an errand for the master it made her much better, and she could eat her dinner then. The errand girls are in much better health than the others, and can eat better. A stranger can see that they have colour and look much stronger. As the day gets on, the girls seem to want a bit of play.

The work done here (drawing) is one of the lowest paid. Work varies at different places. In clipping, if the clips are bad, *i.e.*, a fine small pattern and difficult, three farthings for a thousand clips, and if it is good, a halfpenny a thousand, is fair pay, and would satisfy everybody, but generally good and bad together are done for about a halfpenny the thousand, and in some cases it is charged at a farthing a row or some such way, which makes it come to something less than a halfpenny a thousand. Never heard of any being done for a farthing a thousand. Has done rough mending, but chiefly of fine fancy lace, and for good houses; and being a very quick worker, could get 10*s.* or 12*s.* a week, but at other times has worked harder and got only 5*s.* If the machine makes bad work, *i.e.*, with many holes, the masters cannot afford to pay in proportion, as that would make it seem to come to so much. In mending, some can take the pattern much quicker, *i.e.*, if it is left imperfect by the machine; others cannot, and sit and ponder over it how to fill it up. If they are sociable, one will sooner help another than let the master know that one is slow; but when others come and offer to do the work quicker for the same money it runs the pay of all down. Believes that some of the plain twist cotton lace rough mending is fearfully badly paid, as low very likely as 2*s.* 6*d.* a week; but cotton and all has been much lower ever since the panic.

Elizabeth Ann Shawe, age 12.—Went out to a lace mistress at about 5 years old. Does not know whether she was turned 5. There were two girls besides, but bigger than she was. She went to work at 8 and came away at 7 in the evening. Goes to Sunday school and chapel, but was never at any other school. Can tell the letters but not sound the words. (When tried, does read very short words slowly). Can read the "little words." At chapel they said Jesus was a good man and could save a many people. She has no father.

[This girl is wretchedly pale and ragged, and seems utterly crushed by her early work, or want, or both. Her words fell as wearily and as lifelessly as if dropped by the strokes of a pendulum.]

Caroline Early, age 12.—Went out to a lace mistress when 5 years and 9 months old (by her mother's account). Was the only girl there. Went as her mother could spare her. Reads "the sun set;" that means is gone into the sky.

Harriet Gibson, age 12.—Went to lace work when about 7. There were no other girls. Has been to school on Sunday but never in a week. Knows her letters but cannot sound the words.

Maria Beckwith, age 9.—Has been at four work places (lace) before she came here. Went at 7 years old. Her hours of work then were from 8 till 7, or 8, or 8½. Works here from 8 till 7½, or 8 or 8½. Has been to school on Sunday sometimes, but never else. Knows "O" but not "B."

Harriet Froggat, age 13.—Lived at Basford and went to school there till two months ago. Can read, and never has to stop to spell a long word. Can write well in a copybook and do a few sums.

[This girl is said by the mistress to be the best scholar in the room.]

MR. GRUNDY'S, LACE MASTER, RUTLAND STREET.

This room is low, and the air hot and close like that of a clothes wash-house. The smell seems to be caused by the starch used in dressing, given out from the lace in a warm or damp air. Most of the girls look pale and unhealthy. The cubic space is about 1,800 feet, and the full number of girls about 15.

Mr. Grundy.—Works himself in a warehouse all day till 9 o'clock at night, and scarcely ever gets home to tea. Would not like his girls to be obliged to leave off earlier, because they would have to begin earlier, and in winter they could not get along with the work in the cold mornings. When the room gets warm with the gas in the winter evenings they "get "their hand in" and like to go on till 9 or 10.

Could not work two sets, because he cannot get one full set even now, bad as trade is, and it would make so much confusion.

It would be very inconvenient to have the hours limited. A piece of lace worth 2*l.* or 3*l.* is just sent in to his girls and must be done by to-morrow, as a large case of goods worth 200*l.* or 300*l.* is waiting for it to go to Hamburgh, and if it has to wait two or three days for the next steamer it may be late for Leipsic Fair. If it were going to America it might have to wait a week or 10 days.

Still, work is never so well done under pressure as more at leisure, and if the effect of any law were to make work more regular it would be a benefit to everybody, and a limit to night work would do no harm if all were under the same rules; but it might drive work to Germany, where labour is so much cheaper. The children's earnings are badly spent by their parents. Knows a case where three little sisters working for him, aged 9, 12, and 14, took home between them 14*s.* a week, and the mother spent 7*s.* in gin. Traced this out because he has a great dislike of drink shops.

Henrietta Spencer, age 10.—Has been here four years. Only clips, cannot do scolloping well.

Hours of work are from 8 till 7, but comes herself now at ¼ past 7 to take the little dog out a walk and is paid extra for that. Before that used always to have a bad sore throat about once a month, and used to be so as she could not get her breath without holding her head back, but is better since she took the little dog out every morning. Cannot however stand a crowd, and kept out of it at the Fair. Has not often the headache. If they are busy they stay till 8½ to 9 p.m. In summer they are very "throng," and oftener

stay late than not. Has stayed till 9 p.m. for one, two, or three weeks together. Dinner at 1, an hour, all going home unless it is wet. Tea here at 5, half an hour. Have always the same times "no less nor no more." Can tell by the clock near enough, though she "is not "a very good reader." Have what they earn ; she gets from 3*s.* 6*d.* to 4*s.* 2*d.* or so. Goes to the Ranters' school on Sunday. "It's a good school. I'd rather go than miss it." Reads in the Testament. Reads "about God and the Samaritans and the Disciples and "where Jesus wept." Has not been at a night school, but went to a day school when about 4 or 5 till she went to work at a lace mistress's when going 6. Was getting a good reader when she left and could read both Bible and Testament, but now is getting such a bad reader that she "cannot gain it again." Cannot write, and does not know what sums are. Knows that 4 times 9 is 36, because she has to reckon up her work. Twenty-three "draws" make a day, and there is $\frac{1}{2}d.$ a draw for all over that, but she does not try to reckon it up because mistress always pays right. Clipping, but not drawing, used to dazzle her eyes when looking at it dree, and make them ache, but she is "getting master of it" now. Got a stiff neck from working dree, and so did the mistress, and could hardly move. Has not a cold, but coughs like that (very frequent single cough) very often. Could not do without it.

[A very delicate looking child, with pale flushed face, and pupils enlarged far beyond what was natural for the amount of light.]

Elizabeth Sanders, age 8.—Has the same hours of work and meals. Mistress gives them a basin of milk and a kettle to boil for tea. Gets 2*s.* 9*d.* and 3*s.* a week ; at first had 1*s.* Goes twice every Sunday to the Catholic school from 10 to 12 and 2 to 4. Goes to a night school five times a week straight from her work and can get in there till $9\frac{1}{4}$ or $9\frac{1}{2}$. Writes figures on a slate and spells. Can spell "can," but not "girl." Can do "twice one is two," and so on up to 24, but not "three times" &c. Mother sends her to mass at 8 or 9. Teacher at school asks if she has been, and is pleased if she has, angry if not. Is not asked about Joseph or Jesus Christ, "No, Sir ; "never heard nowt of those folks." Knows, however, (when asked further) that Christ "was a good "man," but she only heard those two or three words, and that so long ago before she came to work. It was when they were just giving over "about 5 minutes "to 4," and teacher had no time to tell them more. That was the only time she was told. Does not know what a Christian is. (The first girl says "you are ".) Has heard, but forgets, what comes to people when they die. Often coughs like that in the morning, seldom in the afternoon.

[This girl also has a frequent low cough.]

Catherine Ward, age 8.—At work two years.

Mary Ann Ward, age 10.—At work three years.

Mary Ann Simpkins, age 11.—At work $4\frac{1}{2}$ years.

Charlotte Comrie, age 10.—At work four or five years.

Mary Ann Porter.—Is overlooker here. There are fires in the workroom, but when the gas is lighted she can hardly stand the heat. Tells the children here they are "like queens" now. Went out to a lace mistress herself at 7 years old. There were nine girls from the age of 7 upwards to some about grown up. The usual hour for going was 7, but they thought themselves lucky if they got home by 10 p.m., though they did not stay much later. They had to sit without shoes on a plaster floor. Has often thought since that it was this which has given her the pains which she has now, or it may be the sitting so long. Girls have to take off their shoes now so as not to dirty the piece. It is not the few yards only which may be dirtied that matter so much by themselves, but they spoil the whole piece and the loss falls on the person who has it out.

MRS. SHATLOCK'S, WOOLPACK LANE, NOTTINGHAM.

There are here a few quite young children.

Sarah Warsup, age 7.—Has been here half a year. Learned drawing at home before. Hours are 8 to 8, not later. Dinner at 1, an hour ; tea at 5, half an hour ; goes home for dinner, but brings her tea here. Gets 1*s.* 8*d.* a week, had 1*s.* at first. School twice on Sunday, and chapel. Has been a few times to the Ragged school at night, and for a month or two by day. Can read short words without spelling (if of two letters only, not if of three). Used to copy on a slate "'m-e'—'me,'" and "'t-o'—'to.'" Six and six are 12 ; did that on a slate. River and sea is where there is all the water. Hears at chapel about God and that Christ died for us.

Sarah Low, age 7.—Here nearly five months. Learned drawing at home so as to come here. Same hours and meals as last witness. Has 1*s.* a week. Goes to school twice on Sunday ; spells a little, but does not know all her letters, and cannot write or figure at all.

Elizabeth Low, age 9.—(Sister to last witness.)—Here nearly a year. Comes with her sister, and goes to school twice on Sunday and to chapel at night. Her sister and she went to school since 3 or 4 years old : learned to sew, and write "M," and read. (Reads three letter words without spelling.)

MRS. HALL'S, LACE CLIPPER, PENNYFOOT STREET, NOTTINGHAM.

Close in front of this house, and separated only by a pathway a few feet wide, is a place for boiling down refuse animal matter. The smell is complained of by the neighbours as very offensive. One has left, another is leaving, and two of Mrs. Hall's predecessors have given up her house on account of it. Complaints have been made to the Sanitary authorities, but without effect.

A boy works here at the same clipping frame with six girls.

A difficulty was made about admitting me, and, though this was overcome, I was interrupted more or less throughout, and at last altogether, but not before I had found that the children were quite young, had worked there for a considerable time, and for long hours, and I was told afterwards that the house had a bad character for severe work and a severe mistress. (See the statement in the account of Wells' house, next but one below.)

I was told that two sisters, aged 11 and 9, were the chief support of their mother, a widow, and several young children. The younger one looked very wan and sickly.

Lace Finishing.
Nottingham.
Mr. J. E. White.

Mary Bradshaw, age 11.—Has worked here five years, always at the same black lace.

The hours are called from 8 to 8, but are usually to 9. All stay the same time, except the youngest girl, who has just come. They have always plenty of work.

Has dinner at 1, an hour allowed; goes home to it. It takes her a quarter of an hour or 20 minutes to get there. The others go home too. Tea at 5, half an hour. She has it in her mistress's room. The others go home. The meal times are regular.

Has set wages; 4*s.* 3*d.* a week, and 1*d.* an hour for overtime. Has got 10*d.* in a week for overtime, and 9*d.*

Has been to a Sunday school twice a day for the last two months, but was never at a night or a week day school. Can hardly spell.

Has been in a chapel about a dozen times in her life. Noah was in the ark.

MR. HAWKINS', FRAME LACE CLIPPER, PETER STREET, OLD RADFORD.

A square room beneath a stocking factory, with five large clipping frames. It was stated that 18 or 20 were the outside numbers ever employed here, and that not more than two frames were used at the same time. If they were, the room would be far too full for health. It appears from the statement of one of the girls (see below) that 30 girls have worked here. At the time of my visit, a very slack time in November, only one frame was in use, employing 10 girls, all under 13. As it was, the room was much over heated by a stove and without ventilation. My thermometer, which I placed on a form at the distance of nearly half the room from the stove, stood at 70°. The gas burners, of which there were a large number, were not lighted, it being day time.

Eliza Glossop, age 11.—Two years here on and off. Hours are 8 to 8, or if busy, from 7 or 7½ till 9. Dinner at 12, an hour. Tea at 4½, half an hour. Some stay here for both. Set wages 2*s.* 9*d.*, and ¾*d.* an hour for overtime. Has worked at some other places, and had about the same hours. Has been at Sunday school for some years. Tried to go before she was 5, but was sent back because she was too little. Has just begun to go to school at night (Tuesdays), but never was at a day school. (Asked to read says): "The letters is like them we do at "school," but cannot spell them. Is learning to write "slant strokes." It is such a long while since she went to church that she does not know what she heard about Jesus Christ, or whether He was kind or did good to people.

When she first came here it made her eyes ache, but she is used to it now. Her head aches badly about once a day and she feels sickly, but not so much just lately. Her cough pains her all about here (throat). When her sister (about 14) worked here a little time back there were 30 girls in the room. She has just gone to a silk factory.

MRS. WELLS', CLIPPER, PENNYFOOT STREET, NOTTINGHAM.

Elizabeth Weed, age 10.—Here three months. Was at Hall's (named above) three days. Mother took her away because they wanted her to work so long. They told her at Hall's that if she would come at 7 and stay till 9 at night they would pay her a lot of money, viz., 3*s.* a week. Did work those hours for the three days that she was there.

Hours here are from 8 to 8. Dinner at 1, an hour. Goes home. Tea at 5, half an hour. Has that down stairs.

Has set wages, 1*s.* a week. Is going to rise to 1*s.* 3*d.* Had 8*d.* at first, when they were slack.

Has been to a Sunday school since she has been in Nottingham, *i.e.*, for a year. Was in Ireland before. Went to church there. Has only been to chapel here about three times, viz., for the "eating," and the "anniversary," and another time. In Ireland there was preaching to the soldiers about Jesus and God.

MRS. JENKINS', PLUMPTRE STREET, NOTTINGHAM.

There are two work rooms here, one on the ground floor for five girls above 13, and five women, the other for generally about 10 young children. The latter is a basement, dark, choked up, and stifling hot; in appearance much like a scullery with a large raised washing sink standing out into the room. A girl of 8 had been here for three months, and at two other mistresses' before for some weeks each. None had been here more than three or four months, some only a week or two.

Ellen Blagden, age 9.—Here four months. Runs elastic into hair nets. All do the same. The proper hours are from 8 to 8, but they stay till 9 or 10, and are late for several nights together. They do not all stay. Dinner at 1; generally an hour. Two girls and the women have it here. Tea at 5, half an hour. All but six have it in this (basement) room. Gets so much a gross of nets; about 2*s.* a week or 2*s.* 6*d.* Has been to school twice on Sunday a year and a half. Never at a night school; at a week day school for half a year long ago. Can spell a little (can), but do nothing else. Does not know what a whale or a mountain is. Goes to a church. The clergyman tells them about Jesus.

Ellen Holmes, age 11.—Only three weeks here. Before that made cigars at Leicester. Comes to work at 6 and 6½ a.m., and stays till 8½ or 9 p.m. That is common. Comes early because father does not like her to stay, and so she never stays later than 9. Those upstairs stay till 10 generally, sometimes later if there is an order. Thinks they stay till 10½ or 11. Same meal times as last witness. Has them in the room (basement). Went to Sunday school at Leicester; never to a night school; at a day school for two years till she went to work a year and a half ago. Can read the Bible, spelling sometimes, and write "middling." Nearly forgets her sums, but could do multiplication, "pounds, shillings, and pence," long division, and all that sort.

MRS. CARVER'S, BRUNSWICK PLACE, KINGSTON STREET, NOTTINGHAM.

This house stands in one of the yards, so common in Nottingham, running at right angles to the street, and closed by a wall at the farther end, the houses on each side being built on at their backs

to the backs of other houses, which in turn front on yards of the same kind. The yard is 16 feet wide and 8 or 10 houses deep, with what appears to be a privy and ash pit, common to all the houses, at the farther end, and a pump in the middle, with a gutter containing some stagnant water and refuse running from it to the street. Across the yard clothes are hung, below the height of the head, on many parallel lines to dry. There are two very small work rooms, one on the first, the other over it on the second floor, each with one window and lighted by gas. The girls who work in these are all learners, and quite young. At the time of my visit, a very slack time, there were one of 6 years, seven of 8, and four others. The eldest, 13, had been there five years. One of 11 had been there $6\frac{3}{4}$ years. The full number in each room is 10, besides a mistress. The top room, which is rather the smaller of the two, measuring into the recess on each side of the fireplace, is 12 feet 6 inches long, 11 feet 6 inches broad, and 6 feet 10 inches high. Reckoning these in round numbers as $12 \times 12 \times 7$ feet, which gives something over the exact measurement, and taking the space gained by a lantern skylight thrown up in one corner as equal, as nearly as the eye can judge, to that taken up by the fireplace, which projects, gives 1,008 cubic feet, or less than 92 for each of the 11 persons. This room did not strike me on entering as crowded more than many other lace mistresses' rooms which I have seen, but of which I have not taken so exact measurements. Much care and kindness seemed to be bestowed on the children by the mistress and her daughter, who overlook them. One, a girl of 8, who knew only some of her letters and no figures, repeated to me almost without a mistake two very long ballad-hymns about little children, which she had been taught while at work by her mistress, and I was asked to, though I did not, hear others say things which they had been taught in the same way. Both the mistress and her daughter wore spectacles. The former began lace work at 6, the latter was always short sighted.

Mrs. Newton.—Overlooks the children for their first year in the top room. Eight is the best age to begin. If they begin younger they can hardly manage the scissors, and do not seem to care to get on. Gives them "drops" or something as rewards to encourage them, and if they get many in a week adds something, perhaps 3*d.*, as overtime to their wages, so many "drops" counting a halfpenny. Gives each child a halfpenny for herself in addition to her wages. It takes three years before they learn to be thoroughly good workers and fit for a warehouse. A girl of 8, who has been here a year, earns 1*s.* a week. Another of 8, here two months, earns 1*s.* Has noticed that the children suffer very much from indigestion and improper clothing. Their parents do not manage well with them. They give them tea for dinner and let them have supper with themselves off hard pork, herrings, pickled cabbage, or other unsuitable food. Then they will dress them out in a large crinoline and smart summer frock, with perhaps hardly any bonnet, cloak, or even shoes. Has had to buy flannel for one little girl who is clothed in this way even now (November), and suffers very much from rheumatism in consequence. It is the custom in many kinds of lace work to make the children sit without their shoes to prevent soiling the lace. Keeps dry slippers for them here when needed. Also the parents will buy two or three useless periodicals like Reynolds', &c., instead of paying 1*d.* or 2*d.* to have useful books from a library as they might. Often lets the children have books from a library, but they will not take care of them.

Mary Wood, age 6.—Clips. Cannot tell how long she has been here. She came in apple time (summer, the mistress said, my visit being in November). Lives near Temperance Hall (half a mile off). Comes by herself, but sometimes mother brings her. Does not lose her way. Comes at 8 and leaves at 8, or often 7. Goes home to her dinner at 1, and back by 2. Tea at 5, in the kitchen; half an hour. Earns 9*d.* a week for mother and $\frac{1}{2}$*d.* for herself to spend. Often goes to school on Sunday and to chapel, but not to a night school. Went to a week day school a little while ago.

Harriet Gamble, age 11.—Has been here "rather "better than six years." Came on Shrove Tuesday. Is nearer 12 than 11 now, but does not know her birthday. (It being now November she can have been barely 5 when she came.) The hours are from 8 to 8, and in winter $8\frac{1}{2}$ to $8\frac{1}{2}$. Has stayed till 9 several times, but the youngest do not stay. Dinner at 1; an hour. Goes home. Tea at 5; half an hour; downstairs. Has 4*s.* set wages. When they were 3*s.* 9*d.* has taken home 5*s.* with overtime. Has been to Sunday school for two or three years, but not to a night or week day school ever. Can read a little (slowly, but without spelling), but cannot write at all. Sometimes when she is looking at her work it "goes all of "a piece" before her eyes, and sometimes has to give up work for a headache.

[This girl looks pale and sickly, with black under her eyes, and is the girl spoken of by her mistress as rheumatic.]

Katherine Comrie, age 8.—Clips. Same hours and meals as the others. Has not stayed later than 9, but has done that two or three times in a week. Is sure of this. Has been at a Sunday school for two years, but never to a night or week day school. Does not know all her letters, or any numbers.

[This is the girl who repeated the verses.]

MRS. JACKLIN'S, FRAME LACE CLIPPER, GEORGE STREET, NEW BRADFORD.

A boy and 21 girls, all under 13, with an overlooker, work here at three clipping frames in a room, so crowded that there is barely space to pass between them, and part of it scarcely seven feet high. A girl of 12 had been here five years, one of 12, two of 11, one of 10, and one of 9 had been here three years each, one of 7 two and a half years, another of 7 six months, and there were two other children of 7 years lately come. There were four gas lights at the height of about four feet from the ground. When the lace is clipped on the hand the lights are usually lower. A woman living in the house with an infant and two or three very young children not at work were also in the room. In spite of all the efforts of the overlooker, a young woman, the noise and confusion were so great that it was most difficult to take the names and ages of the children, who seemed all of a poor class, and many pale and sickly, one with her face covered with unsightly breakings out. Having an opportunity afterwards of taking the actual measurement of this room, neither shape nor height being uniform, I took what seemed rather above than below the average dimensions, as 24 feet long, 10 feet broad, and 7 high, which gives $(24 \times 10 \times 7 = 1{,}680$ cubic feet. The full number of children was stated

Finishing.
ttingham.
J. E. White.

by the mistress to be 24. There is the overlooker besides. This allows only 67 cubic feet and a fraction of space for each of the 25 persons, or with the numbers in at the time of my visit still less.

Mrs. Jacklin.—Has kept girls for 45 years. Has now, when full, 24; formerly had 36. Went to work herself when young at 5½ a.m. and stayed till 10 p.m., but there was no regular time. Is very particular to make the children sit straight at the frame and not all on one side, and corrects for that sooner than anything. If they sit straight frame clipping is very nice work for them. It is not women's work, as they cannot get a living by it. The proper price from a warehouse is ½*d.* for 1,000 clips. It is never more, but this piece which she has now from the warehouse is less than a ¼*d.* for the thousand clips. That will scarcely pay for the doing, what with the fire, gas, scissors sharpening, &c., and she cannot take any more at that rate.

[The French rate for clipping is stated to be ¾*d.* a thousand clips. *See* statement of the witness Bricquot.]

Elizabeth Mathers, age 12.—Has been at work here five years.

The regular hours are from 8 to 8. Sometimes comes at 7 and stays till 9, or 9½, or 10 p.m. Sometimes all have stayed, but generally the younger ones are sent away earlier.

They always breakfast before they come at whatever hour that is. Dinner at 12½, an hour. Tea at 5, half an hour. All go home for both.

There is no washing place, but if they are on white lace they come down into the kitchen to wash.

Has set wages, 3*s.* 6*d.* a week, but is paid extra for overtime. Has made as much as a day, *i.e.*, ten hours overtime in a week, but not lately, as work is short.

Went to Sunday school for half a year a long time ago, but never to a night or week day school. Knows some of her letters. (Does not know some capital letters when shown to her.) Was never taught anything at home.

Has been to the Independent chapel, but not often. The preacher says that "them as is wicked always "goes to the bad place." Has heard father say that the first thing that Jesus Christ did was to make wine of water, but does not know whether He did kind things for people or made them well. Knows of the Queen but not her name.

Has a cough sometimes. It hurts her breast, but not often. Has no headaches, and the work does not dazzle her eyes, but sitting so long makes her legs stiff.

Has a sister here 7 years old. She has been here two or three years and comes and goes with her, and sometimes stays late when witness does.

Her sister goes to school every Sunday, but does not read better than witness.

Sister has the rheumatics very bad for two or three days at a time, but less now than she used to do.

The room is very hot at night at times both in summer and winter.

Maria Hackett, age 9.—Has been here three years. Works from 8 to 8 usually, but has come at 7 for a week together. Has stayed till 9, or 9½, and 10 at night, but not often so late as 10, and lately they have not stayed so late. The "little uns," *i.e.*, about half, are sent home then at 8.

Her meals are the same as the last girl's. Has set wages, 3*s.* 6*d.* a week. Has just risen from 3*s.* 3*d.* At first got 1*s.* Mother keeps the house with it all.

Went to a Sunday school a few times a long while ago, but never to a night or week day school. Does not know her letters. (Does not know a capital A or B when shown.) Has not heard of David or the flood, or Noak, or the ark, but has heard of the people being all drowned.

Has been to the Ranters' chapel, but not regularly. The preacher told them about Jesus, but she does not know whether He was kind to little children or other people.

Has headaches in the morning about every fortnight, and stops work for a day or two or half a day.

Has no cough or pains anywhere. The work does not dazzle her eyes. They do not often have "dree" work. The black is the worst.

Her sister is 7 and has been here half a year. Sister comes at the same time, but goes home at 8 by herself. She lives in the next street.

Sister cannot read. Has fits, but not so much lately.

People kneel to say prayers. She nearly always does at night and says "Our Father" and abou mother and father and sisters and brothers. Mother taught her.

MRS. BARTRAM'S, KINGSTON STREET, NOTTINGHAM.

This is a small but high room with one window, but no other ventilation. Judging by the eye it cannot be more than 12 feet square by 10 high, giving $12 \times 12 \times 10 = 1{,}440$ cubic feet. When more girls were employed here, 15 or 16 of the youngest, who on that account needed more looking after, were put together in this room to be under their mistress, seven or eight elder ones working in the adjoining room. Taking the full number with the mistress as 16 this would give $1440 \div 16 = 90$ cubic feet for each person. The present average number was stated to be 10, besides the mistress, the work being of a kind (clipping) which required more space than the former work (drawing) and trade being bad. But this allows scarcely 133 cubic feet for each person. Part of this space was taken up by a bed piled up with black lace, the smell of the dye being very strong. The bed was laid, and as I was told in use, but not regularly.

Laura Cropper, age 9.—Lately come. Was at another lace mistress's (Carver's) for two years. Hours here are 8 to 8½. Dinner at 1, an hour. Tea at 4½, half an hour. At her last place did not stay after 8½ or 9. Had 2*s.* 6*d.* set wages there. Gets about 3*s.* 5*d.* here, according to the work. Has been to a Sunday school since she was 6, but not to a night school, and only for a short time to a day school. (Spells two or three short words.) Never wrote, or learned what sums are. Sometimes when the gas is on and she is tired, it makes her work go "all of a piece," so that she cannot see it, but one eye has been weak a long time and is better now. Has not always a cough like that, but cannot breathe so well as she "used to could," particularly when she is not well or is walking quick. Had a fever 1½ years ago, which left her with "such a bad (foul) breath."

[A pale girl, with shoulders drawn up and frequent single cough.]

Harriet Yeoman, age 16.—Same hours as last witness. Never stays longer than 8½, but sometimes takes a piece home with her if there is an order. In a full week can get 10*s.* Has been to a Sunday school since she was 5 or 6, never to a night school, but to a day school from 2 years old to 10. Can read. (Reads long words.) Cannot write "a deal," not a letter. Did sums at the day school, but has forgotten them. Heard mistress tell of King David at school, but knows nothing of Adam or Eve "as she knows of."

MRS. JOWETT'S, HIGH STREET, NEW RADFORD, NOTTINGHAM.

Lace Finishing.
Nottingham.
Mr. J. E. White.

Here seven little girls with their mistress and her daughter clip all day in a small bedroom, up very steep and narrow stairs. In the room is a bed apparently in use, but not made since the morning and very untidy, with clothes hanging about it, and there are heaps of old rubbish from the lace clipping huddled into the corners. The whole place looks very squalid. A bedroom so kept is clearly not a fit place of work. The room is lighted by gas.

Mary Bagster, age 10.—Has clipped since she was 7, and nearly always the black lace.

Usual hours are from 8 to 8. If they are "very "throng," come at 6 and stay later. Has stayed till 10 p.m. then, but not later. It is according to the work. Sometimes leaves at 6 or 5. Worked in a smaller room formerly where there was no gas. They could not work by candle light for fear of setting fire to the piece of lace.

Dinner at 1 ; an hour. Tea at 4½ ; half an hour. All go home for them ; but one has tea with the mistress.

Has set wages, 2*s.* 6*d.* a week. Her sister, aged 9, has the same. Her sister has been here at the work since she was 5½ years old, and earns the same. The others get from 1*s.* 6*d.* up to 3*s.* The mistress says she cannot pay them much now work is so slack.

Goes to Sunday school twice a day. Never was at a night school ; but went to a week day school since she was 2 till she came here. Her sister went before she could talk. Can read her Bible, and sister can read a little. Used to be a good writer and was just getting into addition in sums, but now she cannot write at all, and forgets how to make figures.

Knows that the other girls all go to school on Sunday, and thinks that most of them read.

Goes to Bethel, the Ranters' chapel, on Sunday. There is a different man there to speak every time. He tells them to be good children, and religious, and try to get to heaven.

Her eye-sight is good. Is always asthmatic in winter. Often has headaches. Was taken very bad when working late one Saturday night. Could not stand while they dressed her next morning, or eat "half a pikelet," or drink a sup of tea. The doctor did not say what was the matter. Her sister is strong.

[Looks pale and delicate. Is very intelligent.]

MRS. JOINS', CLIPPER, PENNY FOOT STILE, NOTTINGHAM.

The hands were all gone from here for the day. They are, a woman, a girl of 16, and a girl of 8, who has been here six months. The hours are from 8½ to 8. Dinner at 1, an hour. Tea at 5½, half an hour.

MRS. DAKIN'S, SHERWOOD STREET, NOTTINGHAM.

Margaret Tracey, age 11.—A year and a half here. Draws. The hours are from 8 to 8, sometimes 8½ ; the latest is 9. That has not been more than two nights, when there was an order wanted in the morning. Dinner at 1 ; an hour. Goes home. If there is an order mistress tells her to make haste back. Lives 10 minutes off, or if she runs, 5. Gets about 5*s.* in summer, or 6*s.* in a good week. Sometimes 4*s.* School twice on Sunday. A night school in winter from 8¼ to 9½. Was at an infant week-day school from about 5 years old till 9. Used to sew, read, write, and do sums, "the same as mistress does "her work, and adds shilling to shilling, and twice "10 is 20." (Has to spell words of two letters.) Cannot write. Has a cough most in the mornings. Has been badly for above 12 months. Is weak in her inside (chest), and has palpitation.

[A very pale thin girl, and looks very consumptive, described by her sister as "badly "in winter. She's delicate, and has been "in the infirmary two months."]

Annie Tracey, age 9.—Has the same hours as her sister (last witness). Went to a Catholic day school from 4 to 8 years old. Can read a few words without spelling. (Does). Got "a many" little pictures, and once a doll for being a good girl and minding her lessons, but has "lost it all now." Could write words on a slate, if easy.

[A delicate but unusually intelligent child, spoken of by her mistress as "such a one "to work as never was. She works so "hard I am sure she will be ill. She "works till she has to rest her little "head.]

MISSES TAYLOR'S, HOLLOW STONE, NOTTINGHAM.

Four girls under 13 clip here.

Ann Meek, age 7.—Hours are 8 to 8. Sometimes comes at 7, but never stays after 8, nor do the others. Has been at lace work more than a year. Had to leave a warehouse because she was too little. Never went before 8 or stayed after 7 there, and got 2*s.* or 1*s.* 10*d.* at drawing. Gets 1*s.* 6*d.* here. All go home to dinner at 1 for an hour ; for tea at 5, half an hour, but if it is wet they have it in the room. Leaves at 5 on Saturday. Has been at Sunday school regularly for two years, not to a night school, but to a day school till she went to work. Can read her A, B, C, but no more. Forgets what she heard at chapel. Mother told her about heaven a long while ago, when "sister was a dying" ; but it is such a long while ago that she forgets what she heard of it. Is very badly sometimes and can eat nothing, and cannot breathe easily. Her eyes have begun to be very bad lately, and hurt a bit, and she can hardly see. Had the headache so this morning that she could not work, and she is not many days without it.

[One of her eyes is nearly stopped up by a discharge. I was told that she had been with a mistress who was "not good," where she got 6*d.* a week.]

MRS. HILL'S, HOLLOW STONE, NOTTINGHAM.

One woman, four girls over 13 and two under, are employed here in clipping, in a room close and hot, the gas light at the height of a little over 3 feet from the ground.

Lace Finishing.
Nottingham.
Mr. J. E. White.

Eliza Lambert, age 11.—Hours are 8 to 8 summer and winter, never later. An hour for dinner at 1, half an hour for tea at 5. All go home for these. Has set wages, 3*s*. 6*d*. Has gone to the ragged school twice on Sunday, for three years, but never to a day or night school. Can read "not a deal." (Does not know all the letters.) Never tried writing or sums. Does not know whether the Bible is a book ; —whether Jesus Christ was crucified ;—or whether she is a Christian. Saying prayers is "Our Father." Says that night and morning. Has not often headaches, and does not get giddy over her work.

[This girl is very pale and ill dressed. The mistress says that she has no mother, and is much neglected at home by her father who will not let her go to night school because there is a penny to pay, though she (mistress) tries to get her girls to go.]

MRS. BROWN, LACE MISTRESS, CARRINGTON STREET, NOTTINGHAM.

Employs generally about six girls of from 12 or 13 up to 16, but has none just now. Lace is nice work but "very dree," and all of it, even drawing, bad for the eyes. Mending is the worst, waling and grafting (joining a piece to another so as not to show) next, and pearling. Both white and black are very dree. Has travelled a great deal and knows foreign lace towns, but thinks there is not a town any where where there are so many short sighted girls as in Nottingham. Most are so. They go along the street blinking in a way that shows what they are. Stooping so much as they do at mending and in particular at frame clipping, is very bad "for indigestion." They all complain of this, and it must injure their constitution in time. Not one in 20 has any colour in her face. The steam heat also is very bad and nearly makes you sick, and leaving the hot rooms gives cold. Many complain much of rheumatism. The trade is one of great care and anxiety. Has had work sent at 9 at night to be done. The hours in warehouses and houses have been very late, but not so much just lately, but they would if there were work. Never worked with her girls past 11 p.m., as she could not stand it or work next day. Hears two young women come back from a warehouse to a house next her at 1 and 2 in the morning. Knew a youth of 17 who died, as the doctor said, entirely from his long hours at the warehouse (hosiery ; but the warehouses are of the same kind as the lace). He had to go at 7 a.m. and stay till 10 and 11 p.m., waiting at times two or three hours for his dinner.

MRS. S. SWANN'S, GLASSHOUSE STREET, NOTTINGHAM.

Mrs. Swann.—Does clipping, scolloping, and drawing. Has indoors two or three young girls to learn, and a few other girls and about 20 or 25 women. But nearly all are away now, as there is hardly any work. Went to lace mending herself at 9 years old at Quorn in Leicestershire, where she lived. The flossing black silk shawls is the worst work. Thinks it is that which has injured her eyes so, but clipping and scolloping is almost as bad as any. Her eyes pain her very much, but most in the evening. She often has to stop and hold her eyes so (showing) to rest them. Has been very near "taking to two glasses," especially at mending, but has held out against it at present. (Looks a young woman of about 30 or less.) Glasses are very common with lace workers. The work tires the mind too as well as the eyes. It is so anxious. As trade slackens the prices fall. Has now only 30*s*. for a piece of just the same kind and pattern and as nearly as possible the same length as one for which two months ago she had 2*l*., and from the same house. The price often sinks a third in a slack time. They often remark this fall to one another.

Lucy Brentnall, age 15.—Has been 7 years at lace work, first at a mistress's, then in warehouses. At the mistress's the proper hours were 8 till 7, but they were often till 9, and sometimes till 10 and 11, but not later. At Duclos and Collier's warehouse there was one other girl and nine women. The hours were 8 till 7 and never after 8. Here they are 8 till 7, and scarcely ever after 8. Has been to a Baptist school on Sundays since she was 6, and to a day school for a short time when she was about 6 or 7, but never to a night school. Is in the fifth Bible class at school. Cannot read all the words without spelling. Cannot write at all. Did almost learn summing, but forgot it by going to work so soon. Sometimes has like a mist come before her eyes when she looks very "dree," and in the evening her eyes ache at work. Can see the black better than the white by gas light. The gloss on the white dazzles more. (The mistress says that she finds this also.)

MISS GOODWIN, PARLIAMENT STREET, NOTTINGHAM.

Clips and scollops, and does most kinds of lace work in the house. Gives the "brown net" out to be mended, which, as it is ill paid, is done chiefly by old people, though mending is difficult work.

When trade is good employs from 12 to 20 girls from 14 years up to 25. Tried children once, but found them much too troublesome. At most places they have to be kept in order by a long cane.

Scarcely has any fixed hours, but calls them from 8 to 8. When orders come in the girls work late and early, *i.e.*, if they will stay, but hardly ever keeps them later than 10 p.m. If that is not long enough gives a breadth to the elder ones to take home with them, and does not know how long they work at it.

Has had the girls up all night, but not for the last two years, as trade has been so flat. If an order came next day it must be done somehow. She would get it done as she could, either at home or by giving it out, but does not like that so well. The girls could go home to bed next day or stay to work as they pleased. When work is wanted quickly she must take in any one she can get, though not of good character. Clipper and scolloper girls are the worst class in the trade. They scarcely ever stay more than a few weeks at the same place, and run off to any other where they hear from their friends of a little better wages. But they gain no benefit really, as their friends often deceive them to get their company. These girls are generally quite "at a loose "end," and very little cared for or looked after by their parents.

Ellen Casey.—Came here at 18 or 19, and works as a "carder" at finishing. Was up all night twice in one week and at work next day. Does not think she has sat up all night more than three times in a season. Miss Goodwin and she were the only two that generally sat up all night. The other girls had done so. Carding and finishing is the last thing done, and therefore she could not give over so early as the others, but it is easier work and does not try the eyes so.

423

Lace Finishing.
Nottingham.
Mr. J. E. White.

MRS. BRIDGETT, BROADMARSH, NOTTINGHAM.

Has no girls at work now, but usually employs about 15 between the ages of 10 and 15 with an overlooker. If one room is filled a second is used. The hours are from 8 to 8, with an hour for dinner at 12½, and half an hour for tea at 4½. If she is busy she keeps the elder ones later, but lets all "under their 'teens" go, because children get so tired, they do not pay for their overtime. They "get as restless as birds." In the last summer she had to sit up all night once, but she only had young women with her. But that lost her more than she gained, though as she had the order she was obliged to do it or she would lose her custom. Was overlooker in a factory for 12 years and knows the plan well, but is sure they would never work rules of that kind in a warehouse, as it makes more trouble for the masters and increases the number of hands whom they have to employ.

MRS. WIDDOWSON, CARRINGTON STREET, NOTTINGHAM.

Employs girls at drawing and clipping and gives work out to married women, but has had nothing lately and does not look for any till January probably. Her girls are from 12 to 20 in number, and any age from 6 to 20, and the hours from 8 to 8, or if busy, an hour later perhaps. If the work is wanted all must stay. Children of 6 years old often begin to "draw." In many mistresses' houses it is usual to keep young children till 9 or 10 p.m., which is too long for little ones. Saw a child the other day come into a warehouse to ask for work. The child was going 8 and very little, but had been at lace work for two years. Is sure working at this early age is quite common. It is also very common to see young children coming out of warehouses at 9 or 10 at night, a score of them together. This is not only at a particular time of the year but may be at any time when there is an order. When they leave even then a bundle of work is often given to them to take home. It may be said perhaps to be for the mother, but the child sits and helps. Know houses that do give out in this way, and has seen the children many a time coming home at night with these bundles. Believes bonnet front making is the most injurious work to girls, and has heard mothers complain of its effect on them, and that it had made some go off in a decline. Sitting so long as they do at other lace work, and getting their meals in the work rooms, is very bad. Employing such a number of young children over fills the trade and runs the prices down so that the work is scarcely worth doing. But the trade has been cut up and spoiled so lately. Formerly it was busy from February to August, and there was employment the year round, but for the last few years it has been very bad. If the work were more regular it would be much better for health and work too. Has often heard people when late in a warehouse say they wish they were in a factory and could give over work. Besides it would be better for the grown up people who now get so little.

MRS. HOLLAND, PLEASANT ROW, ISON GREEN.

Has no girls at work now, work being short, but usually employs 10 or 12 between the ages of 9 and 14 at frame lace clipping. The hours are from 8 to 8, never later, as it would interfere with her husband. An hour is allowed for dinner at 1, and half an hour for tea at 5. But little children are kept at some places from 6 a.m. to 11 p.m. Has heard people say that "So-and-so will always oblige me with an order, if she "sits up all night to do it." Most of her girls have been well taught at the national school here. There are but few places near for the girls to go out to work, so that they do not begin so young and are better taught at school.

MRS. CAYLEY, NORTHUMBERLAND STREET, NOTTINGHAM.

Gives out lace work to women. There is not nearly so much done now in houses as there used to be. It is gone into the warehouses.

It is a shame that people should keep young children so late as they do at lace work in houses, sometimes till 10 o'clock.

Some children are put to the work very young. Many like to go, but soon get tired of it and wish to leave.

MISS POYSER'S, WHEATSHEAF YARD, SNEINTON.

Annie Ames, age 11.—All clip. Works from 8 to 8. That is the earliest; to 9 is the latest. Some girls come at 6 and 6½. Is not able herself because she is not well. Has headaches at times. Is not tired at night. Is not short of breath. (Is so audibly.) Dinner at a quarter to 1; always an hour, whether busy or not. Tea at 5; half an hour. Goes home; but sometimes brings her tea with her here. All clip the same piece of lace, and sometimes spoil it. "We "catches it" then, but do not get less wages. Hers are 3*s*. Has been to Sunday school for two or three years; never to a night school. To a day school from 5 years old to 8 or 9. Knows her letters. (Reads easy words.) Never wrote on a slate.

Sarah Ann Dudgeon, age 15.—Her proper time to come is 6 or 6½ or 7 a.m. Came at 6 once this week, and every morning last week. 8 p.m. is the proper time to leave off, but sometimes it is 9. Has come at 6 a.m. and stayed till 8 p.m. It is only two or three bigger ones come at 6. Same meals as last witness. Earns 4*s*. 6*d*. Has gone to school twice on Sunday since a little girl. Never to a night school, but to a day school for three years some years ago. Can hardly read. (Is timid.) Never wrote or did sums. Has good health.

MISS BLACK'S, CARLTON ROAD, SNEINTON.

The work room here is hot and close, with 15 girls only, and there are sometimes 20. With this larger number, calculating measurements by eye, the space would not be more than 100 cubic feet for each. The children work with their shoes off. The mistress, quite a young person, seemed particularly kind, and was spoken of to me as very deserving.

Annie Burnton, age 11.—At lace work nearly four years. Draws. Comes at 8, but has no regular time to leave off. If not busy, leaves at 6 or 5. If busy, leaves at 8½, or 9½, or 7½. Cannot say whether they are oftenest early or late. Dinner at 1 or a bit later; not often as late as 2; but they always have an hour. Tea at

Lace Finishing.
Nottingham.
Mr. J. E. White.

5 ; half or three quarters of an hour. Goes home for both. All but the four biggest girls go home or to friends' houses for their meals. Gets from 2*s.* to 4*s.* a week, and has 1*d.* or 2*d.* for herself. School twice on Sunday. Has not been to a night school, but thinks of doing so. Was at a day school for a short time when "going 5." Can read. (Does.) Father taught her, and is going to teach her to write. He is a blacksmith, but has not had any work for three or four years. Does not have headache, or feel tired when she goes home.

[Is miserably thin and pale.]

Mary Ann Marwood, age 10.—At lace work three years. All have the same hours and meals as last witness. Earns by piecework 2*s.* 6*d.* or 1*s.* 10*d.*, or 3*s.*, if working from 8 to 8. School and chapel twice on Sunday, and to night school twice a week last winter. Left a week-day school to come to work, because father, a twist hand (lace maker) fell out of work. He has not had any for 20 months till now. Is in the Bible class, and only spells the hard words. Can write a bit on paper, and do one or two sums. There are five tens in 50. Ocean is sea. Has not headache often.

[Is pale and has a cough.]

MRS. JACOB'S, BELLARGATE, NOTTINGHAM.

Mrs. Jacob has been at lace work since she was 14. All lace work is very "dree," *i.e.*, tedious and bad for the eyes. The mending is worst ; then clipping and scolloping. Silk is worse than cotton, and requires more care every way, because it is finer and used for more fashionable things, and therefore the patterns change much oftener, which increases the difficulty, the hand and eye not being so used to a new pattern. The finer the pattern the dree-er the work. The children get sick headaches at it, and have to go home. Thinks that is from sitting so long with their heads down. Finds her own eyes weakened, and after heavy work they will ache, and she feels as if she wanted to close them. Cannot see at a distance at all as she used. It is a great pity that little children cannot go to school more. The wages which they take home are often drunk away by their parents by Saturday night, though when their fathers are out of work the children's wages are sometimes all they have to live upon. This has been so in the case of some of her children. For clipping and scolloping children are not of much use before 11, and for drawing not before 9. This is rather below the average age of the children whom she employs now. The best age to begin is about 12.

Mary Ann Hazard, age 13.—Has been at lace work four years. Clips, and always black silk. Has to watch very closely or would cut it, and have to pay for mending, a $\frac{1}{2}d.$ a hole. Can see the work as well at the end of the day as at the beginning, and by gaslight as by daylight. The light is brighter by gaslight. Mistress often has the window up when it is too hot with the gas. Has good health, but often has the headache two or three times a week, and goes home for a day and loses her wages. This is more in summer than winter. It dazzles her eyes then. It is the heat that does this. But the room is just right in summer and winter both. There is a fire in winter. Can breathe well. The hours are from 8 till 7. When there is a great order they come at 7 and stay till $8\frac{1}{2}$ p.m. Never later. All come and go at the same times. Dinner at 1 ; an hour. Tea at 5 ; half an hour. One or two stay here for them and have them down stairs. Can get home in 10 minutes if she walks, in 5 if she runs ; and if she is busy sometimes only stays at home a quarter of an hour for dinner. Does piecework, and gets 5*s.* or 6*s.*, if they stay later and have better work. Father is a lace maker, and has been out of work two years. Goes to school on Sunday when mother, who is ill, can spare her. Has been to night school twice a week for two winters, but last winter mother wanted her at home. Never was at a week-day school. Goes to church on Sunday night when mother can spare her. The preacher told her most about God, and that He was "a good man and saved all of us." Her eyes do not water. Has not a cough. (She has.) Does cough a few times every day; most in the morning.

[This girl has a short cough and a flush in her cheeks.]

Elizabeth Large, age 12.—Here towards two years, and at another mistress's two years. Clips and scollops; always black lace, at both places. The hours are from 8 till 7, but, if there is an order, mistress tells them to come if they can at 7 and they stay till 8, or if very busy till 9 p.m. ; but "mistress don't like to keep us late." Can see by gas as well as by daylight, but when the gas is lit it is hot, and mistress opens the window. Can have it open without hurting, because mistress tells those who sit near it to come a little bit forward, so that the wind cannot catch them. Sometimes when they are late "us have to rub us eyes," when they have been looking at it dree, because they feel sore. Does not see any specks. An hour for dinner at 1. It is sometimes later, but they always have their hour. Tea at 5, half an hour. Goes home to both. Gets 4*s.* or 4*s.* 6*d.* Went to Sunday school for about nine weeks, but mother cannot spare her. If she did go regularly she could get a ticket for the night school, but not otherwise. Never was at a day school. Says she knows her letters. (Does not.) Has a sick headache about once a week, a bad one, and asks leave to go home. About once a month mother gets her to bed for it. When she looks at the candle it hurts her, and she sees little things going about against her eyes. Always speaks husky like that. Her throat does not hurt her ever. Can breathe well.

[A pale, poorly clothed girl.]

MRS. NEWHAM'S, QUEEN STREET, SNEINTON.

Emma Stone, age 11.—Frame clips. There are generally six girls besides herself, the youngest 9, and one about 13, and two young women, but they are away from work now, some gone into warehouses. Hours are 8 to 8, sometimes in summer 7 till 9, but not often. Dinner at 1, an hour. Tea at 5, half an hour. Two have them downstairs and play afterwards, the rest go home. Has set wages, 2*s.* 6*d.* and 1*d.* an hour for overtime. The youngest girl has 1*s.* 9*d.* School on Sundays at 9 and 2, and Thursday evening in winter, and on week days till she came here two years ago. Can read. (Reads a stanza.) Has "lost" her writing. Did addition, subtraction, and multiplication, but could not get some of them right. The preacher tells them about the Apostles, viz., Matthew, James, John, and Mark, and the Trinity. Her head often aches very bad, but not her eyes, though the white lace dazzles by candle-light. The black does not, and she likes that best. Has candles, not gas.

MRS. BROWN'S, BELLARGATE, NOTTINGHAM.

Sarah Ann Scott, age 11.—Here three years. Clips. Hours are from 8 to 8, never later, and to 5 on Saturday. The other girls come and go at the same times. An hour for dinner at 1, and half an hour for tea at 5. Sometimes waits an hour for dinner, Some dine and tea here if it is wet and they live far off. With full time gets 3*s.* School on Sunday sometimes. Never was at a night or week day school. Knows her letters, nothing more. Does not know what a lion is.

MRS. COMRIE'S, HAWKRIDGE STREET, NOTTINGHAM.

Martha Scoffin, age 10.—Clips here with mistress's daughter from 8 to 8, sometimes till 9½, and till 5 on Saturday, with an hour for dinner at 1, and half an hour for tea at 5, going home for both. Gets 3*s.* 3*d.* a week, and has learned for a year. Goes to school twice every Sunday, not often to a night school, and to a week day school only for a year long ago. Can read easy words without spelling, but not write, and has not learned much summing.

MRS. CULLEN'S, LACE CLIPPER, EPWORTH TERRACE, NOTTINGHAM.

Mary Suffolk, age 13.—Has been at work eight months. There are often seven or eight girls here. Now there are only three.

Hours are from 8 to 8. Never to later than 8½.

Dinner at 1, an hour allowed. All go home. Tea here at 5, half an hour.

Went to a Sunday school for a year, but has not for the last six months. Went to a night school twice a week for one winter. Was at a week day school for two or three years. Left a year ago. Can read short words, and write easy words on a slate. Did easy sums, but forgets what. Reads the Testament at home of a night, and on Sunday to mother or to herself, but forgets what it is about. Does not remember about Christ being born, or what happened at Christmas time.

MRS. WILKIE, EPWORTH TERRACE, NOTTINGHAM.

Is a maker up of lace articles such as "falls," &c. In the busy part of the year *i.e.*, from February to Midsummer, employs towards 20 women and girls in her house, but none under 10, as they are of no use for that work any younger.

Is often very much pressed for work then, but does not keep her hands longer than from 7 in the morning to 8 in the evening. Some take their work home then.

Has no hands in her house at this season of the year (October), and trade being bad; there is but little work doing anywhere in houses now.

MRS. EVELYN'S, FRAME LACE CLIPPER, LENTON ROW, ISON GREEN.

There are offensive smells in the yard by which this house is approached.

Mrs. Evelyn.—Has no girls at work to day, as work is so scarce now. Generally has about 8, from 9 years up to 15. The hours are 8 to 8; dinner at 1, an hour, and tea at 5, half an hour. Thinks that most of her girls go to dissenting schools about on Sundays, and are fairly taught.

Julia Thornton, age 9.—(Looks in to ask when there will be any work.) Is the youngest girl here. Her hours are always from 8 to 8, not longer. Has 2*s.* 3*d.* set wages, and no overtime. Goes to a Church school every Sunday, and to Church afterwards, but never to a night school. Was at a day school for a year till she began work about two months ago. Can spell a little (does) and write with a slate pencil. Can write the shape of a kite and A, B, C. The clergyman reads about God, and Adam in the garden, and Eve stealing the fruit.

MRS. HALLAM'S, SIMON STREET, NEW NOTTINGHAM.

Mary Jane Brown, age 13.—Does not work here regularly, but only does a bit of drawing sometimes when she comes to fetch it home for mother. Other girls do the same. Draws all day at home till about 8, and does not go to school in an evening, but does on Sundays. Can read the Bible, write in a copy-book, and has done some sums some time ago, when she was at school for a few months.

MRS. MOUNTIGNY'S, RUTLAND STREET, NOTTINGHAM.

There are six girls here, one of 7, two of 8, two of 9, and one of 10, and three or four women. It is one of the few rooms which I have seen not lighted with gas, which cannot be brought in owing to a cistern crossing the entrance.

Eliza Woolley, age 9.—Clips and scollops. Comes from 8 to 8, sometimes staying till 9. All do the same. Dinner at 1, an hour; tea at 5, half an hour. All go home for dinner, and for tea also, but sometimes have this downstairs. Gets 2*s.* 9*d.* Goes to school and chapel on Sundays, but never to a night school. Was at a day school for a year till she came to work here two years ago. Can read (a few short words) but never counted any figures. Never heard of Eve.

MRS. WOOD'S, FRAME LACE CLIPPER, GREGORY STREET, RADFORD.

Mrs. Wood.—Generally has about six girls, but only two now, both under 13. Never has more than four or six together at a frame, because it is not healthy. Wishes the children could go to school.

Ellen ———, age 12.—Is a frame clipper. Comes at 7 in summer and 8 in winter. Stays till 8, p.m, or, if very busy, till 9, but that is not often. All go home to dinner for an hour at 1. All stay here for tea at 5, half an hour. Has been to Sunday school and to church afterwards for three years, but never to a night school. Went for many years to a day school till she was at work. Has been here two years. Can read a little bit, not write; never learned any sums.

MR. HAWKINS'S, FRAME LACE CLIPPER, PARK STREET, LENTON.

There were no children here at the time of my visit, in consequence of scarcity of work. The average number was stated to be about eight, between the ages of 11 and 13, and the hours from 8 to 8, and no longer, even if they were "throng," with half an hour for dinner at 12, and half an hour for tea at 4½, for both of which the girls go home.

ace Finishing.
Nottingham.
Ir. J. E. White.

MR. MOORE, FRAME LACE CLIPPER, GREGORY STREET, RADFORD,

Has no girls now, but usually has from 4 to 14, all between the ages of 9 and 13. Hours are 8 to 8, never later, with an hour for dinner at 1, and half an hour for tea at 5. Some bring their breakfast. Can get more hands if he wants.

MRS. WOOLL'S, WESTON'S YARD, PLUMPTRE STREET, NOTTINGHAM.

Emma Frances Morley, age 15.—Draws. Hours are from 8 to 8, never later. Dinner at 1, an hour. Tea at 5, half an hour. All go home. Has been at an infant school and learned reading, writing, and summing. Can read easily, but not write; forgets summing, but could do it once. Does not know what 9 times 9 is; 17 and 17 are 38.

MRS. MINNETT, PARLIAMENT STREET, NOTTINGHAM.

Is a clipper and scolloper, employing usually, from spring to Michaelmas, from six to eight girls, at the most 12, between the ages of 9 and 20, in her own house, giving a good deal of work to women, who do it at home with their families. Can nearly always get as many hands as she wants, either in doors or out. The usual hours in her house are from 8 to 8, never later, with an hour for dinner, and half an hour for tea. At the present time (November 1862) when trade is very flat, has but very few hands. Has only three to day, and they are out.

MRS. WILSON'S, FRAME CLIPPER, PARK STREET, LENTON.

It was stated that the average number of girls here was 10 or 12, between the ages of 9 and 14, but that all were now away for want of work, and that this was often the case for two or three months in winter. The hours from 8 to 8, never later, with an hour for dinner and half an hour for tea.

MRS. NEWMAN, SIMM STREET, NEW NOTTINGHAM.

Employs one girl, age 11, a neighbour's child, at drawing quillings. The girl, who is not here now, has no regular hours, but comes when she likes. Believes she goes to Sunday school and chapel. She often brings prizes for good behaviour and attendance, and can read and write nicely.

MRS. WRIGHT'S, ST. JAMES' STREET, NOTTINGHAM.

Mina Shawe, age 10.—Is the only girl. Comes from 8 to 8 as a learner. Goes to Sunday school, and has been by day for a few weeks. Can read, but "not big words," and write.

MRS. FROST, HENRY STREET, SNEINTON.

Employs a girl aged 9 and two women at drawing, but they are away now. The hours are 8 to 8 or 7½.

MRS. ADKINS, PENNY FOOT STILE STREET.

Gives work out to grown women chiefly, but employs in her house two girls of about 17.

MRS. DAVIS, CARRINGTON STREET, NOTTINGHAM.

Gives out work to about 12 married women, who do it at home with their children.

MISS CAVAN, CARRINGTON STREET, NOTTINGHAM.

Is a dressmaker, but employs a girl or two on lace when trade is brisk.

Account of THE LACE* [AND HOSIERY] MANUFACTURES, furnished by Mr. W. Felkin, Nottingham.

For more than 50 years I have been much engaged in obtaining, by personal observation and inquiry, a practical knowledge of the state and progress of manufactures at home, as also in France, Germany, Switzerland, and Italy; and of the condition of the working classes employed in them.

Having resided in Nottingham since 1825, and engaged throughout the interval in the manufactures of this district, my efforts have been frequently directed to the improvement of the staple trades of lace and hosiery, and the circumstances of the working stocking and lace makers. For this purpose several elaborate accounts have been drawn up at such intervals, and from such materials as could be obtained by diligent search, setting forth the machinery employed, wages paid, and other important particulars, with a view to publication. Thus I made an actual census of the lace machinery in 1836, repeated and stated in a paper drawn up in 1856, and one of hosiery frames in 1844, showing the extent of each business at those

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* Mr. Felkin stated that the general nature of his remarks did not admit of their being applied to the subject of Lace apart from that of Hosiery. Part therefore relating exclusively to Hosiery is enclosed in angular brackets, thus, [ ], and for convenience of reference hereafter to this statement as embodied in the evidence relating to the Hosiery manufacture, parts relating exclusively to Lace are enclosed in curved brackets, thus { }—J. E. W.

427
Lace Finishi
Nottingham
Mr. J. E. Wh

epochs, and the numbers, wages, and condition of the people employed. The latter, read at the York meeting of the British Association, appears in Muggeridge's report on the hosiery trade, made in 1844. These and various other papers on kindred subjects affecting the interests of trade have often been accepted as evidence on inquiries by Commissioners and Parliamentary Committees. To the account of the lace trade in 1836, and the one read to the Society of Arts in 1856, and to the census of the hosiery trade taken in 1844, and the reports on that branch of our manufactures made to the jury at the Exhibition of 1851, and again in 1862, I must refer for extended details of their past history and present extent. Yet as such important interests are at stake, whether of the large bodies of workpeople whose manner of employment and wages are in question, or of the employers, whose arrangements, affecting profits on capital and returns, are to be reckoned by millions sterling, it seems desirable that some figures condensed from those papers should precede the observations which may be offered in reply to the questions propounded by the Commissioners for inquiring into the Employment of Young Persons.

[Taking these trades in order of time, that of machine wrought hosiery was based on Lee's stocking frame, invented in 1590 at Woodborough in this county, and by the use of which the manufacture of stockings was established in 1620 in London and the midland district. The number of frames at work was—in 1670, 1660 ; in 1714, 8,600 ; in 1753, 14,000 ; in 1782, 20 000 ; in 1812, 30,000. In the more exact census of 1844 there were shown to be in—

—	Cotton.	Woollen.	Mixed.	Silk.	Not at Work.	Total.
Leicestershire	6,933	9,875	1,582	168	2,303	20,861
Derbyshire -	4,380	—	171	1,454	792	6,797
Notts - -	12,440	46	299	2,094	1,503	16,383
	23,753	9,921	2,052	3,716	4,598	44,041
In other parts of England - -						1,572
„ „ Scotland - -						2,605
„ „ Ireland - -						265
In 1844, total frames - -						48,483

Upon each former enumeration of this century the frames which were not at work were not taken any account of. These included during 40 years an average of from one fourth to one third of the whole. Thus the increase shown in 1844 was only an apparent, not a real one. For many years the hours of work had been long, the labour severe, and the weekly earnings less than in any other staple trade, averaging throughout the trade less than 7*s.* per week for able bodied persons of both sexes working by hand labour at the machines. Of these there were partially employed about 50,000; and about 50,000 women and children were partly or wholly engaged in winding and seaming. The latter classes earned from 1*s.* 6*d.* to 3*s.* a week. The returns of the hosiery trade in 1844 were 2,560,000*l.* In 1851 they had increased to 3,600,000. The introduction, about 1846, of the steam worked "round" frame, making at great speed knitted sacks that require only to be cut and shaped and sewn up into hose by women and children, has much increased production, and, by low prices, consumption. There are 1,500 sets of an average of 12 heads each of these "round" frames in the trade. There are now also about 1,500 steam "rotaries" of great width and rapid movement (some fashioning by the machine) employed in adding largely to the production of cheap articles. These new frames have added to the dead outlay of capital 300,000*l.* There are also about 800 "warp" frames making various kinds of hosiery. The last year of average business was 1860, when the returns were 6,480,000*l.*, consisting of 2,630,000*l.* cost of raw materials, and of 3,850,000*l.* for wages, finishing, and profits.

The scarcity and high price of cotton wool renders the year 1862 one of much diminished employment and returns. From 1850 to 1860 demand exceeded supply. The hours of labour were lessened, and wages advanced by competition to get work done. In the year 1860 youths and young men obtained in the narrow hand frames from 12*s.* to 18*s.* ; men from 15*s.* to 25*s.*; winders and seamers from 3*s.* to 5*s.* a week. At the "round," the "rotary," and the "warp" frames, all which are worked by steam, young women earned from 12*s.* to 20*s.* and men 20*s.* to 35*s.* a week. In cutting, mending, and finishing, girls and women got from 8*s.* to 16*s.* weekly. There were employed directly and indirectly in the English hosiery trade, about 120,000 hands of both sexes. Children are engaged in stitching and seaming domestically. The narrow frames are for the most part worked in houses or in small attached shops, spread over 250 parishes of the three midland counties. The "warp" and newly invented "round" and "rotary" machines are worked in steam factories. They are very costly and require highly skilled hands to control, and for the most part, to work them.]

{The like may be said of the lace machinery, to which we now proceed. It is beyond any other, used to an equal extent, ponderous yet composed of an infinity of parts, requiring a perfect mechanical adjustment in order to their harmoniously co-operating to a successful result. The bobbin net trade was established in 1810 by Heathcoat, the inventor of the machine. In 1815 there were 140 machines ; in 1820, 1,008 ; in 1826, 2,469 ; in 1831, 4,500 when the returns were 3,417,000*l.* ; and nearly 150,000 hands were employed, far the greater part of whom were women and girls, dwelling in all the counties of the central districts of England, and engaged in "lace running," *i. e.*, embroidering by hand. This work was in many cases only done in the intervals of household labour; but where it was the only resource, the hours were long, the wages very low, and the labour, being sedentary, injurious to health. The earnings were for a time, from 3*s.* to 7*s.* a week. The demand for hand embroidery almost entirely ceased by the year 1835. In that year the machines were 3,800 ; being reduced in number, but increased in width and speed. The returns were only 2,212,000*l.* and the number of hands did not exceed 50,000. The report of the jury in the Exhibition of 1851, drawn up by Mr. Birkin, gives 3,200 machines of 35,000 quarters in width. The returns he estimated at 2,300,000*l.*, and the hands at 133,000. An application of the Jacquard apparatus to the various kinds of lace machinery had been so successful in this interval of 15 years, as to result in the employment in and around Nottingham of thousands of girls and young women chiefly, in "drawing," "clipping," "cutting," "scol-" "loping," "folding," &c. the various kinds of fancy goods now turned off the machines. In 1856 my summary of machines was 3,500 of 40,000 quarters in bobbin net, and 800 warp frames together of the value of 1,650,000*l.* ; making a return of 4,040,000*l.* and employing 135,000 hands. In 1862, Mr. Birkin in the Report of the International Jury, states that he finds 3,552 bobbin net frames of 52,544 quarters and 800 warp frames, together of the value of 2,315,000*l.* ; and I make the return from these to have been in 1860 about 5,000,000*l.*, and employing 150,000 hands. Of this return 1,200,000*l.* would be cost of materials, and 3,800,000*l.* wages, finishing, and profits. Thus the bobbin net machines had increased 50 per cent. in width, though only 10 per cent. in number, in 11 years. But this greatly increased return (more than doubled) resulted from the larger number of fancy machines, and those of great speed and width. There were 1,957 making fancies and only 1,242 producing plain nets ; 1,949 machines were upon silk goods ; 1,250 only upon cotton ; and 353 were in 1862 standing still.

The extent to which fancy lace goods are produced, all requiring such a diversity of labour to be performed in Nottingham, where the finishing opera-

e Finishing.
ttingham.
J. E. White.

tions are for the most part carried on, has necessarily drawn female labour from all the surrounding districts and located it on the spot. This fact opens up several subjects of inquiry germane to the inquiry on hand.

Meanwhile it may be stated that while in 1842 only one third of the then existing machinery was worked by steam and two thirds of these weighty machines were turned by hand, now, scarcely with an exception, all are turned by steam. Since 1851, three fourths of a million sterling has been added to dead outlay in lace machinery, and a quarter of a million sterling has been expended in new warehouses for finishing and vending lace. In the construction of these ventilation has been sought to be so ordered as to conduce to the health and comfort of those who have to labour in them. I am not yet convinced that these results have been secured to the extent desired and anticipated. The vexed question of the best way to heat rooms where numbers of people are constantly at work, seems as far from a satisfactory answer as ever. Nevertheless, the probable increase of employment in warehouses renders all that relates to pure air, warmth, cleanliness, separation of sexes, and attention to the claims of decency and morality of more importance. These demand, and are in most instances receiving, due consideration by employers.}

It may here be properly remarked that one of the most marked and gratifying advances made since Mr. Grainger's report in 1842 is the special influence brought to bear, in a large and increasing number of lace and hosiery establishments, by employers on the personal character of the persons whom they employ, whether male or female. In such warehouses the former are not so dissipated ; nor in the work-rooms alluded to will any females of evil or even of doubtful purity be tolerated by principals, overlookers, or even, in not a few instances, by their fellow work-women themselves. The system of placing more responsibility upon overlookers, whether as to the character and conduct of the persons employed, or as to the quality and amount of labour performed and results realized, is producing wholesome discipline and improved order, combined with greater kindness and sympathy amongst all concerned. A sort of public opinion, at least an unwritten code of class regulation, has sprung up, which, as it gets into more extended operation, will at least draw a broad line of distinction between businesses carried on upon such wise and upright principles, and the reverse. How important the social consequences must be will be gathered from the numbers of those, principally females, who in this and other departments of these staple trades, are made the special subjects of this inquiry.

The lace and hosiery trades form by far the largest sources of employment throughout this district, and the foregoing approximate statements show that together they made in 1860 a return of nearly 11,500,000*l.* sterling, and employed about 280,000 hands. The rate of wages had equally advanced in the lace trade as in the hosiery. In 1836 men working in lace making earned weekly from 12*s.* to 35*s.* ; women 3*s.* to 12*s.*, as menders, embroiderers, finishers, &c. ; children 1*s.* to 4*s.*, as winders, drawers, &c. At the like employments in 1860, children got 3*s.* to 5*s.* weekly ; girls 6*s.* to 9*s.* ; women 10*s.* to 16*s.* ; youths 8*s.* to 12*s.* ; young men 14*s.* to 18*s.* ; men 20*s.* to 35*s.* There prevailed, therefore, through both these large bodies of workpeople a rate of wages calculated to secure the means of health, comfort, and most of the ordinary conveniences of life, and to the provident some provision for sickness and old age.

It would aid the prosecution of this inquiry, if the numbers of each of the sexes engaged in these businesses could be accurately stated, and still more, if the ages also at which work was begun in each department could. The former may be judged of with an approach to the truth by an examination of the census tables for 1851 and 1861, abstracts from which will be given below, contrasting the numbers of each sex in the unions of Nottingham and the parishes of Basford, Radford, Lenton, and Sneinton, as also other interesting tables. One of these shows the increasing excess of the female population of Nottingham, at the date of the census in 1861, 7,477, and including the suburbs 9,885. This can only be accounted for by an immigration of females into the borough and its vicinity, to be as rapidly absorbed, chiefly by the lace trade ; for the greater number of female domestic servants is scarcely worth notice. Another table shows that the increase of births over deaths in Nottingham, has been in the last 10 years only one half of what it has been in the Basford and the Radford unions immediately surrounding it, the population of each being taken into account ; and all, including Radford and Basford parishes, being analogous in employment. This fact opens up a question of great local interest as to the probable cause of this discrepancy, and whether the nature of our business arrangements is one of them. I cannot without further investigation attempt to solve it.

It will be observed that the excess of females over males is almost exclusively in the unions of Nottingham, Radford, and that part of Basford union lying in Basford parish alone. In the rest of that union there is a considerable excess of males, amounting in 1861 to 1,180.

There has been provision, throughout these unions, of dwellings for the increased population, so that the number of inmates was in 1851, and continued in 1861, rather under five to each household.

By this time (December 1862) there are in the borough, suburbs, and out-parishes about 10,500 females in excess of males. Far beyond this number are residing as lodgers in families who usually take little interest in their inmates, and exercise but slight control over them. In numerous instances, these young persons are at a great distance from all their relatives, having come from the adjoining counties of Derby, Lincoln, Huntingdon, Cambridge, &c. The temptations are very powerful to go into the dangerous company found in music and dancing saloons, and ill regulated licensed victuallers and beer houses, of which, notwithstanding all the repressive vigilance exercised by the magistracy and police, there are too many. Youths have a "stint" of work given them to do even as apprentices, which being permitted to be performed during any portion of the week, they are the masters of their own time and proceedings, and are under little or no domestic authority whatever. Many parents and masters feel solicitous about the pecuniary results rather than the moral conduct of those towards whom they stand in relations of such serious responsibility. There are, therefore, great facilities for admixture of the sexes, under no control and at unreasonable hours. This undoubtedly results in a low tone of morality, and frequent instances of entire destruction of character. All these things make strict but kind discipline in workrooms invaluable.

The increase in wages throughout the hosiery and lace trades has not only resulted in an increased supply of labour suitable for females, and in which children are largely engaged, but it has had other important results. The hours of work performed by women and children, to which serious attention had been drawn throughout this district by Mr. Grainger's report in 1842, had been by competition for work-people shortened, I have no doubt, two hours a day. They average in warehouses now the year round 11 at most, including one hour and a half for meals, and 12 hours in private dwellings, with like intervals for meals. These limits are usually strictly kept in warehouses ; in the houses to which work is taken out by "mistresses," though not so much as formerly, it is to be feared that according to the character of the "mistresses," or the pressure put on them by the warehousemen to return the goods finished within certain limited times, these out-door workpeople's hours are yet often unduly exceeded. In warehouses work is carried on from 8 a.m. till 7 p.m., including meal times, and outside,

429

Lace Finishing.
Nottingham.
Mr. J. E. White.

where considerable numbers are congregated together, the hours of daily labour are from 8 to 8, and work ceases on Saturday at 5 p.m. The established holidays in Nottingham and its suburbs, are in warehouses, Christmas day, wholly, and two half-days following besides ; half-day on Shrove Tuesday ; whole day on Good Friday ; at Easter two half-days ; at Whitsuntide, three half-days ; at the Races, two half-days ; and at Goose Fair, three half-days. Probably, these times of recreation are in the main allowed by those who labour at home. The earliest age at which children are put to work at home upon lace is, I think, advanced from 3 years old in 1842 to 6 now, and in warehouses, where in 1842, 6 would not have been thought unusually early, 9 is now considered quite young enough to take them on to be either useful or safe. That those children in warehouses should be able to read and even write tickets is desirable. Some employers, and many overlookers, have come to the conclusion, that a higher age still might be adopted with advantage to all parties, if day-school and domestic instruction could be thereby secured to fit these young persons for those duties which they are, under existing arrangements, too often but little prepared to fulfil. All are agreed on the vital importance to society that this point should never be lost sight of. The working man's house should be made if possible his happy home; therefore, the early education or training of those who are one day to be the wives and mothers in such households, whether it be derived from schools or factories, warehouses or work-rooms, must be of incalculable importance.

There are greater numbers now working in warehouses, in proportion to the entire amount of females employed, than in 1842 ; but what the respective and total numbers are, it is not in my power to state with any accuracy. They may vary from 50 to 500 in warehouses, and from 30 to 300 at work for each concern out of doors. Some employers give out work in larger proportion, because it may cost less done in this way. Others choose to have the greater part done on the premises, on account of its being of greater delicacy or value, requiring superior skill, cleanliness, and care. If the varied and expensive character of Nottingham and fancy lace continues in demand I expect that the warehouse workpeople will become more numerous.

Taking into consideration the beneficial effect of the inquiry in 1842, though not leading to any legislative enactment, but followed by ameliorations, such as above described, up to the present time ; and feeling assured that the present investigation will tend of itself, by the publication of evidence, and the impartial opinions and advice of the Commissioners, to equally desirable results, guiding employers to improved plans, and strengthening that public sentiment, which will enable them to carry them out to the benefit of all ; I am of opinion that it would *not* be beneficial to extend the operation of the principle of the Factory Acts by any legislative enactments *at present*, either in regard to warehouse or out-door work rooms. I think the design of those Acts is in course of attainment, practically, in most warehouses ; and soon will be, I trust, in all ; whether as to hours, meals, health, or moral influences.

If warehouses be placed under an Act of Parliament, many more hands will, I fear, be put to work outside, and the course of voluntary improvement be checked. The work-rooms in private houses are in a more doubtful position ; but their improvement as to age and hours of labour is manifest. In proportion as work in warehouses increases, as there is reason to expect it will, if not interfered with, there will be a further pressure on those who take work out, to make those perfect and salutary arrangements for the hands, or they will in ordinary times leave them for the higher wages and greater comfort of the warehouse. I would suggest that if any legislation were to be introduced, wherein the question of the sacredness of the dwelling might be touched, it would be well to confine it, at first at all events, to registration by "mistresses," as to place, numbers, and hours of labour in their work-rooms. The late Lace Factory Act places, practically, the comparatively few young people who are within its operation, in about the same position by law that I apprehend young persons in our warehouses have been placed by voluntary regulations. An intermittent, irregular system of working young persons is giving place, in lace factories, to one confining their labour within the ordinary hours of the day. That is already the practice in regard to a large proportion of those now under inquiry. Laws cannot do them much good ; and may do both them and their employers harm. As to the rest, until the general facts that may come out in evidence on this inquiry shall be made public, and can be judged of as a whole, I would rather not offer any decided opinion. The constitutional maxim that "an Englishman's "house is his castle," cannot be reasonably made to bar the door to inquiry, and, if need be, registration and periodical inspection of work-rooms. Yet the line would be found so difficult to draw between really domestic work and work-room labour in practice, that if the end can be obtained without legal interference, it will be desirable.

The more rapid means of inter-communication undoubtedly lead to orders being smaller, more frequent, and requiring more rapid execution. This is especially so in all fancy trades, liable by change of fashion and other circumstances, to sudden alternations in demand, even from the most distant markets of the world. This produces a heavy pressure upon both makers and finishers of goods produced expressly for a season trade, and which are therefore liable to much depreciation if held over to take the chances and changes incident to the next season's operations. Orders are, as a rule, held in hand by the merchant to the latest day to which he can risk their execution, so that he may avoid risk of countermand. It is the same with the finisher ; and, therefore, much effort is needed to get the orders executed within time. If my information is correct, the risk of loss by changes for non-fulfilment of contracts as to time and quality is becoming greater every year. This must tell upon the workpeople of both sexes in its degree ; and comes last, and sometimes severely, upon those who finish goods *out* of warehouses ; *in* them, when it occurs, the price per hour of overtime is, I believe, generally doubled.

{It will be evident that the risk of making cotton yarn, or plain woven cotton pieces for stock, is widely different from that of making a mere article of fashion, like lace. The former must be saleable, for it is a necessary ; the other is often suddenly and for years thrown aside as useless, because it is unsaleable. If this matter be looked at in connexion with the enormous cost of our machinery, particularly that now employed in making fancy lace, and the great amount of capital and of returns necessary to make it profitable, a strong reason may be seen for caution in dealing with this subject.}

It may be stated here that there is a very marked and beneficial physical result to the females employed, resulting from embroidering by hand, which requires a sitting down at a frame hour by hour, and which is prejudicial to health in many important respects, being in a great measure exchanged for the varied operations now occupying a large proportion of the women and girls employed in warehouses, and not unfrequently at their own houses or in the work rooms so much referred to above. Not only is the muscular system brought more into play, and all the bodily functions more healthily at work, but the weariness to the eye and the brain from monotony in work avoided. There is more life and natural energy of youth visible in our population than formerly ; they work less and live better than 20 years ago. This is in itself a happy change, but it has its special dangers to meet and overcome which the mother's loving care and early instruction, the father's guidance and authority, and the teacher and employer's best influences are necessary. The wide differences observable in the principles and conduct of our young people will, if carefully traced, be found to originate at

Lace Finishing. Nottingham. Mr. J. E. White.

home; the misconduct which we have so often lamented may be either confirmed or checked and modified by the different modes in which they are taught at schools, or influenced by the course of training which they pass through in places of work or trade. This is eminently seen in the different results of females being placed under one "mistress" or overlooker and another.

The Sunday school system was established in this town and neighbourhood about 70 years ago. It has been carried out here as extensively in proportion to the population as in any other place. I cannot give the numbers showing the present attendance, but have reason to suppose that it exceeds that of any former period in positive numbers, but not relatively to population. Attendance upon day schools for the lower classes, though very irregular from the varying amount of employment, is also greater than formerly, but scarcely keeps its place in proportion to the greater numbers to be educated, and the greater means obtained by parents available to this use. Evening schools, I am afraid, are not so much better attended as they ought be under the decreased hours of labour and higher wages. The two hours previously spoken of as abstracted from labour might be, if used for purposes of learning and self instruction, of priceless value, and would leave Sunday schools to teach morality only. A conviction of this kind has stimulated ministers of religion of every denomination and benevolent persons of every class to adopt evening teachings in literary, scientific, moral, and social subjects in schools for the people, and in Bible classes, working men's institutes, and mothers' meetings, to a large, and, if I am not misinformed, a growing number of both sexes and of various ages. To the more faithful discharge of parental duties, aided by these efforts, my thoughts and hopes tend more and more as the necessity of our age and nation. Sunday schools have been a blessing, though with their drawbacks; for the labour of a child in learning to read has often made the day, the place, and the book alike distasteful to him. To this I attribute the fact that 60 per cent. of our population have been at one time or other in Sunday schools, and yet with so little permanent good effect. The week day should be for secular teaching; Sunday for moral uses alone.

TABLE showing POPULATION of NOTTINGHAM DISTRICT in 1851 and 1861. (Unions.)

Unions.	Census of 1851.				Census 1861.				Population in 10 Years increased.	Excess of Births over Deaths.
	Males.	Females.	Total.	Excess of Females.	Males.	Females.	Total.	Excess of Females.		
Nottingham -	27,071	31,348	58,419	4,277	34,134	41,621	75,765	7,477	17,346	5,713
Radford - -	12,683	14,093	26,776	1,410	14,280	16,199	30,479	1,919	3,703	4,038
Basford - -	32,839	32,084	64,923	5,687 excess of males 755	36,988	36,297	73,285	9,396 excess of males 691	8,362	11,312
Total - -	72,593	77,525	150,118	4,932	85,412	94,117	179,529	8,705	29,411	21,063*

* In 10 years, 1851 to 1861.

TABLE showing POPULATION of NOTTINGHAM DISTRICT in 1851 and 1861. (Parishes.)

	Census of 1851.					Census of 1861.			
	Males.	Females.	Total.	Excess of Females.		Males.	Females.	Total.	Excess of Females.
Nottingham - -	27,071	31,348	58,419	4,277	Nottingham - -	34,144	41,621	75,765	7,477
Radford Parish -	6,077	6,560	12,637	483	Radford Parish -	14,280	16,199	30,479	1,919
Lenton Parish - -	2,666	2,923	5,589	257	Lenton Parish - -				
Sneinton Parish -	3,887	4,553	8,440	666	Sneinton Parish -				
Basford Parish -	4,866	5,227	10,093	361	Basford Parish -	5,848	6,337	12,185	489
					Total - - -	54,272	64,157	118,429	9,885*
Total - - -	44,567	50,611	95,178	6,044	Ten Years' increase	9,705	13,546	23,251	3,841†

* Actual excess of females in 1861.

† Increased excess of females in 10 years.

TABLE showing the NUMBER of INHABITED HOUSES in the NOTTINGHAM DISTRICT.

Unions.	1851.	1861.	Increase.
Nottingham - - -	11,679	15,477	3,798
Radford - - -	5,417	6,362	945
Basford - - -	12,814	15,252	2,438
Total - - -	29,910	37,091	7,181

NOTTINGHAM UNION. POPULATION RETURNS 1861.

Wards.	Separate Families.	Inhabited Houses.	Not Inhabited Houses.	Houses building.	Males.	Females.	Total.	Excess of Females.
Sherwood -	2,909	2,608	239	72	5,414	7,156	12,570	1,742
St. Mary's -	1,712	1,513	184	27	2,997	3,662	6,659	665
St. Ann's -	4,385	3,965	358	94	7,454	10,621	20,075	1,167
Byron - -	3,836	3,104	221	10	6,620	8,052	14,672	1,432
Exchange -	1,973	1,721	232	56	4,187	4,777	8,964	590
Castle - -	1,665	1,341	143	—	2,986	3,749	6,735	763
Park - -	1,145	1,055	49	1	2,000	2,856	4,856	856
	17,625	15,307	1,426	260	33,658	40,873	74,531	7,215
Liberties of Castle -	171	170	1	7	437	802	1,239	365
	17,796	15,477	1,427	267	34,095	41,675	75,770	7,580

MR. EDWARD BECKITT TRUMAN, RESIDENT SURGEON, GENERAL DISPENSARY, NOTTINGHAM.

In this dispensary the employment of the patient is entered on the books. I have been surgeon here only for a year and a half, and have not had time to draw many general conclusions. But I have noticed that cases of consumption are found chiefly amongst young females, chiefly between the ages of 17 and 24, some older and some younger, employed upon lace, though the particular branch of the employment is not specified. This, however, is the age at which, on account of the development of chest, which takes

place at this period of life, diseases of this kind would naturally most show themselves. It is also for the same reason the age which would be most liable to be affected by external causes. On looking over the books, my attention has been drawn to the great increase of consumptive cases during the last 10 years, which has led me to draw up a table which gives the following results. I find that out of the number of patients attended at their own homes during those years, averaging in each year 686, the proportion of consumptive patients, *i.e.*, in round numbers omitting fractions, has been as follows :—

In 1852	1 in	45
„ 1853	„	28
„ 1854	„	17
„ 1855	„	18
„ 1856	„	15
„ 1857	„	13
„ 1858	„	15
„ 1859	„	9
„ 1860	„	8
„ 1861	„	8

The sudden exposure to cold air after leaving the high temperature which I have observed in the work rooms, is likely to bring on congestion of the lungs, and that in scrofulous subjects is likely to end in phthisis.

The assemblage of a large number of persons and the use of gas must both of them produce a great amount of impure air, which, unless there be good ventilation, which it is very difficult to obtain without draughts, will act primarily upon the lungs, and also produce weakness and headaches. I am not acquainted with the use of gas in other ways than for light, as I understand is the case in bonnet front making, but any use of gas where a free escape for it is not provided, especially if it be low down, must be extremely injurious, and ought to receive attention. The lower gas is used the more injurious it must be, as being heated it must escape upwards.

Sitting long, especially if in a stooping position, is unhealthy, and weakens the chest.

Great heat is also very unhealthy, especially if it be moist. Moist heat is more oppressive than dry, as it prevents perspiration and determines blood to the internal organs, and also prevents the natural exhalation from the mucous surface of the lungs, and thereby interferes with the proper interchange of gases between the blood and the air.

By reference to a standard work on phthisis (Louis) published in 1852, by the Sydenham Society, I see that, though it appears that this disease is probably more common amongst females than males, there were not then sufficient data to determine whether this is uniformly the case, or, if so, to what extent. But from my experience here undoubtedly females suffer from it most, I should say, speaking from memory, in the proportion of 10 to 1.

Female complaints are common here. It appears by the books for the last year (1861) that out of 2,566 cases on recommendation, considerably less than half of the whole number of dispensary patients, there were 66 cases of amenorrhœa, 50 of menorrhagia, 63 of anæmia, and 25 of hysteria, all coming under the head of cases of recommendation, and all female complaints, or a proportion of about 1 in 12½.

MR. JOSEPH OPE BROOKHOUSE, SURGEON, NOTTINGHAM.

I have been one of the surgeons to the Nottingham Eye Dispensary since its establishment in 1859. From statistics obtained from eye institutions in 14 other towns having an aggregate population of 1,276,024 persons it was supposed that an eye infirmary in Nottingham, if its patients bore the same proportion to the whole population as in those towns, viz., 1 in 38, would, when in full operation, receive 1,500 cases yearly. Besides this, as stated in the first report published after a short experimental trial on a small scale, "The trades of the town itself and of the indus- "trial district of which it is the centre (lace and "hosiery) had been long known to exert a very "hurtful influence upon the sight of the workpeople "employed in them." In the first year of the permanent establishment of the Dispensary, ending the 31st of October 1860, the number of cases admitted was 985 ; in the second year, 1497, or as near as possible the full number estimated for the place when in full working. Of these about two-thirds came from the town of Nottingham itself, a fifth from the suburbs of Basford, Lenton, Radford, and Sneinton, and the remaining two-fifteenths from more distant places. But from that date, viz., from October 31, 1861, the necessity of imposing a payment of 1*s.* on admission of all patients without recommendation who required medicine, and a further payment of 2*d.* weekly, seems to have checked further growth, and has reduced the cases in the year ending October 31, 1862, to the number of 906, notwithstanding the fact of the place being now far more firmly established, and probably more widely known. A large proportion of these cases have been those of people employed upon lace, particularly lace mending ; and many patients have complained of the difficulty of seeing their work when black, and others of the white dazzling them. The injury to the eye arises in a great measure from its over-exertion, and in particular from a constant strain upon the muscle (ciliary) by which the eye accommodates itself to the distance of the object by moving or holding the lens forwards or backwards as occasion requires. The longer this strain is continued, and the fewer and shorter the intervals of rest or change of employment, the greater is the injury caused. The effect is also likely to be increased by the employment being begun at an early age. The cases put down as "impaired vision from constitutional causes," which out of the 90 first cases were found to be 16, or more than 1 in 6, arise chiefly from want of nervous power, which is likely to be increased by employment in heated and impure air, in which, as I have understood, people often work, or by anything which tends to weaken the general health. In all cases the use of the eyes by gaslight is likely to be more injurious than the same amount of exertion by daylight. One cause which tends to prevent the relief which would be obtained by the use of glasses in an earlier stage, is that workpeople, either men or women, are unwilling to take to them for fear of losing their employment, as the employers, from some reason or other, object to people with glasses, perhaps from the idea, not always well founded, that sight so assisted is not likely to be so efficient as that of others.

As a medical man, I have had my attention attracted by the number of consumptive cases amongst women and girls here from gassing and bleaching establishments, where I believe they do not bleach, but only finish indoors ; and particularly also amongst those engaged in bonnet front making. The patients have explained this to me as a process in which they work immediately over a very hot gas stove. The sedentary nature of the employment of these and others, and the frequent changes of temperature to which they are exposed, especially in leaving heated work places late in the evening, tends to the increase of this disease. I believe that most other medical men in the town have also noticed the prevalence of consumption, but I have no data by which to measure its degree of excess.

Another fact which is noticeable in this town is the number of cases of operative midwifery. The need of this I attribute in part to early immorality, and to habits of employments and other causes which tend to exhaust the strength.

Lace Finishing.
Nottingham.
Mr. J. E. White.

The following are letters from two medical men of high standing in Nottingham, Dr. Robertson and Mr. White, in answer to questions put before them by me as to the effect of the employments of Nottingham upon the general health, and asking the former, amongst other things, whether he attributed any ill effects to the monotonous and sedentary character of most lace work employment, and whether in his opinion the weakness of sight common amongst even very young children, was likely to be transmitted by parents to their children, but not asking either for any suggestion as to remedial measures desirable to be adopted.

Wheeler Gate,
November 19, 1862.

My dear Sir,

I am not in a position, from the want of statistics, to give you detailed answers to the questions you propose. But, judging from the result of my experience of some years as physician to the General Hospital, the Dispensary, and the Union Hospital, I can affirm generally that the larger proportion of preventible diseases occurs in young girls working at home. Their work is ill paid, their nourishment generally insufficient, and their houses unhealthy.

A table prepared by Mr. White, our late house surgeon, shows—

1st. That the prevailing diseases in this class are those of a purely asthenic type.

2nd. That the average age of this class is only 22, or eight years less than a similar average in better localities.

The principal cause of disease of those working in dressing rooms and other warehouses where great heat is necessary is the extreme alternation of heat and cold to which the workpeople are exposed. Hence a large number of this class are phthisical, and instances of acute rheumatism or rheumatic fever are not unfrequent.

I do not attribute much importance to the "monotony" of the work or the "posture" of those employed. Nor do I think that any prevention against the straining of sight which the fine character of *some* of the work produces can be suggested.

The presbyotic and myotic condition of the sight in the young children here,—for both these defects undoubtedly are seen amongst them,—are not, in my opinion, inherited. They are probably produced by a variety of causes, and would probably soon yield to treatment, were such treatment early and skilful, instead of being, as it now is, delayed and empirical. It should be imperative that treatment should commence with the commencement of the disease ; and to ensure this, as also many other important objects, a qualified inspector should exercise regular supervision over *all* work establishments where large bodies of uneducated persons are brought together.

There are many other points upon which I have now no time to touch. I would conclude by expressing *a strong opinion*, based upon some years of careful investigation and practical experience, that in order to carry out any plan having for its object the moral and physical advancement of the rising population of this country, systematic, complete, and skilled inspection should be enforced in *all* establishments where a larger number than, say, half a dozen workpeople are collected under one roof; and that the same skilled agency should be empowered to report upon and suggest remedies for any defects in the sanitary arrangements of those *smaller* habitations in the manufacturing districts where such defects are glaring and remediable.

Yours faithfully,

J. E. White, Esq. Wm. Tindal Robertson.

[The letter, after referring to the intention of the writer shortly to draw up a paper on the subject referred to as applied to Nottingham, begged to refer to that paper when published for a fuller statement of the writer's views.]

Regent Street, Nottingham,
December 13, 1862.

My dear Sir,

In reply to the questions contained in your note of the 8th ult., I shall be very happy to furnish you with the result of such observations as I have been able to make on the effects of the employment of that class of our population to which your inquiries refer, viz. : "Females employed in the different branches "of Lace Manufacture, but not working in Factories."

These observations were made by me as Assistant House Surgeon at the Dispensary from 1839 to 1844, as Resident Surgeon to the General Hospital from 1848 to 1857, and since that time from cases falling under my notice in private practice and as one of the surgeons to the Hospital.

The diseases which I have found to be most prevalent amongst our female lace workers, and which seem to be traceable to their employments, have almost invariably been such as result from debility, amongst which the following have been the chief :—

Scrofula.
Consumption (phthisis).
Amenorrhœa, dysmenorrhœa, &c.
Hysteria.
Chorea.
Disorders of the digestive organs.
Rheumatism.
Affections of the eye.

The females working at the lace manufacture in Nottingham may be principally comprised in those employed

(A.) in warehouses.
(B.) in dressing rooms.
(C.) in rooms at private houses (principally children)
(D.) at their own homes.

(A.) Those employed in the warehouses are principally adults from 15 to 30 years of age, who are occupied at the various processes of finishing the lace and preparing it in different ways for sale. Their occupation is a sedentary one, and in busy seasons they are sometimes occupied during long hours ; but in the majority of instances, they work in large airy rooms, well warmed and ventilated, and their occupation is by far the most healthy of the four classes I have enumerated.

In some instances in which the rooms are heated by steam, and where sufficient care is not bestowed upon the regulation of the temperature, many of those employed suffer from headaches, colds, rheumatism, and hysteria ; but the majority of the diseases which prevail amongst this class are those ordinarily found amongst a poor population.

(B.) Those employed in the lace dressing rooms are also adults, of much the same ages as those engaged in the warehouses, and in these the diseases incidental to those exposed to a high temperature are abundantly evident. Here we frequently find girls grown into womanhood at 14 or 15 years of age, and in these the diseases attending rapid and weakly development commonly show themselves, as amenorrhœa, chorea, hysteria, scrofula, and phthisis. Those thus employed commonly stand for many hours a day in a temperature frequently above 100° Fahr. The majority are weakly, and but few, I believe, continue to work in these rooms for any great length of time.

(C.) Those working in private houses are principally children ; and here a number of young girls are daily collected in some small room belonging to the "mistress," who procures from the warehouses the lace to be finished by the children ; and they are employed in drawing, mending, and joining the

Lace Finishing.
Nottingham.
Mr. J. E. White.

pieces of net, which have been recently taken from the machine. The work is carried on in rooms usually over-crowded and ill ventilated, and in prosperous times during the greatest number of hours that children can be got to work; at other times, with much uncertainty and irregularity; but at all times under conditions that tend to the deterioration of the health of all that are engaged in such occupations. Their work is a stooping, unhealthy employment, and they are frequently occupied at it more hours a day than the factory children. It has been at times no uncommon thing in Nottingham to find from 15 to 20 children in a small low room (perhaps not more than 12 feet square), working for 15 hours out of the 24 at an employment in itself exhausting from its tedium and monotony, and, in addition to this, exposed to every cause that can tend to injure permanently the health of those engaged in it. In this manner are frequently sown the seeds of those diseases, from which, in a few years afterwards, so large a proportion of the female population suffer; and it is no difficult matter, in the vast majority of cases, to trace the origin of the more serious diseases of after-life to causes contracted by the injurious occupation of the child.

(D.) Those working at their own homes are principally lace runners, persons above 20 years of age (many married, and the mothers of families), who are employed in working patterns by the hand on machine-made net. The work is a stooping, wearying, monotonous employment, requiring constant intent watching, and causing great stress upon the eye. The majority of those who work at this occupation for any length of time become short-sighted, and amaurosis, in various degrees, is a disease from which they are frequently found to suffer.

The following table, calculated from the registers of the hospital and dispensary patients, will show the per-centage of those diseases to which I have alluded, occurring in each of the four classes of female lace workers.

I shall be glad to furnish you with any other information in my power.

I remain, yours faithfully,

J. E. White, Esq. JOSEPH WHITE.

Diseases.	In Class A.	In Class B.	In Class C.	In Class D.
Scrofula	2·1	3·0	12·1	2·4
Phthisis	3·3	4·5	5·7	5·6
Rheumatism	1·6	8·1	2·2	4·0
Hysteria	7·4	14·4	7·5	6·5
Amenorrhœa, dysmenorrhœa, &c.	17·2	21·2	25·1	18·2
Chorea	0·5	1·3	8·2	2·7
Dis. of digestive organs	13·4	11·0	7·2	20·5
Affections of eye	1·4	0·5	2·9	9·5
Other diseases	53·1	36·0	29·1	30·6
	100·0	100·0	100·0	100·0

MR. JOHN MOORE, SURGEON, LEICESTER.

I am Medical Officer for the borough of Leicester. In the course of my duties as such officer I have visited several of the dames' schools in that town, and in one of my reports to the Local Board of Health have given a table showing that in these schools the amount of cubic space allowed to each child was as low as, in two, 26½ cubic feet, in two others between 28 and 29 cubic feet, and in seven others ranging from 34½ to 58¾. In this Report I state that "the necessity for the inquiry arose from "the numerous instances of the rapid extension of "scarlet fever, measles, &c. in the neighbourhood "of the dames' schools whenever these diseases ap-"peared in them." Also "that the overcrowded "state of many of the schools is injurious to the "health of the children cannot be doubted; and if "it does not originate, it in many cases aggravates, "the diseases to which children are liable, and is "probably the means of bringing many to a pre-"mature grave who might otherwise have lived "to a good old age." I also quote from a prize essay published by the American Institute of Instruction, that "a space of four feet, and of the usual "height of rooms, is the least that can be occupied by "a pupil for *one hour* with safety." I state also that an eminent American physician, in speaking of a schoolroom in which there were 34 cubic feet of air to each child, says, "that no child could be exposed "to the air of this room six hours a day for two "years without the formation of tubercles (the seeds "of consumption) in the lungs." And that another eminent writer on this subject states "that 150 cubic "feet of atmosphere is the smallest amount that "should be allowed to each pupil." And further, that "the Educational Inspectors appear to require a "ground space of not less than 8 feet in rooms from 15 "to 24 feet in height." And that therefore, in rooms of only 8 feet in height, I could not recommend a ground space of less than 9 feet, giving 72 cubic feet of atmospheric air, for each child.

From these and from other authorities which I have consulted on the subject, I have arrived at the conclusion that less than 150 cubic feet of space is insufficient for a child. Though the amount of cubic space which I have at present recommended the Council to require is only 72 cubic feet, or less than half this amount, my recommendation, which has been enforced in every school of every class in the town, has been very beneficial in its effects upon the dames' schools in particular, as shown by a marked improvement in the health of the children in them, as stated in my later Reports on the sanitary condition of the town. If I had recommended the larger amount perhaps nothing at all would have been done.

J. K.—Is a druggist in Nottingham, having had extensive practice amongst the poorer classes there for a great many years. Sleeping mixtures under new names and perhaps rather milder forms, but all having laudanum as their basis, are as much in demand as they were 20 years ago. Mothers come and ask for something "to sleep their child." In different districts different drugs are in favour, Godfrey's cordial more in the poorest districts, sold by grocers as well as druggists. When the child can run about, *i.e.*, at a year or two old, the drugs are no longer used. Children are given out to nurse to old women who make a business of it. Has been asked by such a woman to recommend a child to her.

Has been struck by the great increase of consumption in young women in about the last seven years, which he attributes to the nature of their employment in hot crowded places, and exposure to the air and weather afterwards. Complaints of female irregularities are unusually numerous, particularly amongst those who work in dressing rooms. This class of people also suffer much from consumption, and from swelling of the leg, caused by their long continued standing.

[Another druggist having a like practice with the last witness in a different part of the town, states that the use of Godfrey's cordial and like compounds is quite as great as it was more than 20 years ago. These witnesses' names are not given, as their practice is of course not recognized.]

Lace Finishing.

Nottingham.

Mr. J. E. White.

MR. MICHAEL BROWNE, CORONER OF NOTTINGHAM.

I have been coroner for the Borough of Nottingham for nearly 27 years, and during that time my attention has been much attracted by the large number of deaths of infants resulting from the administration of opiates. In a report which I made to the Home Office many years since on the subject of deaths by poison I drew particular attention to this fact, and I also gave information of a like kind to Mr. Grainger on the occasion of the Children's Employment Inquiry 20 years ago. From the facts which have come before me I believe that the use of of opiates in some form or other, though less under the name of Godfrey's cordial than formerly, has not diminished since that date. Only those cases come before me where the dose given has been large enough to cause fatal results very shortly after its administration, when the child generally either sleeps quietly away or falls into convulsions. But I gather from medical men, with whom I am much thrown in the course of my official duties, that a far larger number of infants are seriously injured in health or sicken and dwindle away from the same cause. I have also observed, apart from this, that infant mortality is unusually high in certain poorer quarters of the town inhabited by people of the class most given to the habitual use of opiates. This is no doubt owing in some degree to the defects of close, ill-ventilated building, and of drainage in the dwellings themselves, but also I believe in great part to the general habits of the mothers, and their ignorance and inability to take proper care of their children. Many young females in Nottingham are brought up in employments where their earnings in times when trade is good enable them at an early age to throw off the restraints of a home, and it is common for girls in this position to board out or take a room where two or three live together free from parental control. They are exposed to many temptations in this town, not only from dangerous places of amusement, as dancing rooms, &c., but even from their employment itself, in which large numbers of them are brought together much mixed up with men employed in the same establishments, and often at late and irregular hours. In a time of good trade many of the warehouses may be seen lighted up till 10, 11, or 12 at night; but for the last three or four years trade has been so bad, that I believe there has been comparatively little need of night work to the hours which I have named.

These late and irregular hours no doubt increase the opportunities of immorality, and even without such excess the girls have little time for instruction in home duties. At any rate when they grow up to marry many of them do not seem able to make their own homes attractive to their husbands, or to give proper care to their children. Many marry and have children when very young, and being unwilling to give up the employment and wages obtained at the warehouses, are away from home during the day and have little opportunity of affording their infants even the natural nursing. The child therefore must either be left at home to be cared for as it may, or put out to some one else, often at a distance, to take care of it. In either case opiates are more likely to be used to lessen the trouble.

In one case where a child died from the administration of opiates, under circumstances of most culpable neglect of the doctor's repeated positive warnings and personal efforts to save the life, the mother said "the child was much better as it was, and she "was quite reconciled to it," and was astonished that I did not agree. I found that she had had, I believe, eight healthy children born, to all of whom she had, as she admitted, being in the habit of giving cordial; only one was living. Six had gone off somehow, and one had been run over by a cart and killed. But the neglect and ill treatment are likely to be greater where, as is too often the case, the children are illegitimate. This arises partly from the almost necessary circumstances of the mother, partly from the greater motive to be rid of the child. In an inquest which I held on a child of 15 months old, who died in a miserable condition, it was proved that on the very day of its birth it was sent by its mother to a neighbouring village, the administration of Godfrey's cordial commenced, and afterwards regularly continued day by day up to the time of its death. Cases of the deaths of children of warehouse girls from the same cause, some of the mothers being under the age of 18 years, have come before me as coroner, some of them distressing cases; and cases of infants, some of them undoubtedly born alive, found dead in privies, canals, &c. are sadly numerous. Of my 37 last inquests (from January 1861 to June 1862) on children under 2 years of age, 34 were cases of children under one year, and of these 34 there were five of children thrown into privies, &c.

Taking into account the relative numbers of legitimate and illegitimate births, to the best of my recollection by far the greater proportion of those infants on whom I have held inquests have been illegitimate, but this proportion is no doubt increased by the fact that I have thought it well to direct more strict inquiries in all cases of death where the child is illegitimate, on account of the probability of improper treatment and the greater motive for getting rid of a child which is often felt to be a dreadful incumbrance.

Another index and result of the amount of immorality prevailing amongst the young females here is the large number of persons whose profession it is to procure abortion. Cases of deaths resulting from this have come before me. The earliest female practitioners in this line here of whom I am aware were women who had, I believe, resided for some time in France with their husbands who had gone over there as lace makers. These women brought back with them some knowledge of the art, and the practice very greatly and fearfully increased, but it is now somewhat discouraged, or at any rate not practised in so open and undisguised a manner as formerly, in consequence of some prosecutions, though, from the difficulty of obtaining evidence, there has been but one conviction in Nottingham. In one of the earliest cases I had depositions formally taken and sworn before one of the justices for the town, who issued a warrant against one of these female practitioners. She was not apprehended in consequence of her taking flight. The evidence showed that she had made an arrangement for treating in this way any of the girls in a particular factory to which the witness (a young female patient of hers) belonged, at so much a head.

A few days after the above statement was made an inquest was held on an infant aged 14 months under circumstances strikingly bearing out the truth of the above remarks. The facts, as taken from the depositions, were as follows:—The mother, employed in a lace warehouse and married (I am told at the age of 17) to a tailor's apprentice, had lately put out this infant with her only other child, a year and a half older, to a woman with three children of her own, to nurse at a payment of 3*s.* 8*d.* a week for the two, out of which the food of the infant was to be found, and she said she should have put them out earlier if she had had the money. The earnings of the mother were 9*s.* 6*d.* a week, and those of her husband on the average 12*s.* She took the child to the woman before going out to work early in the morning and brought it home on her return, generally about 9 at night; but though the child was in a very sickly state she paid no attention to what it was fed on and sought no medical aid. At the last mixtures were obtained from druggists, which, however, the mother denied on oath, though she afterwards admitted it. The home of the child was stated to be without the slightest appearance of

Lace Finishing — Nottingham. — Mr. J. E. White.

comfort, and the child itself in a state showing gross neglect. The jury expressed themselves strongly on these points. The coroner, addressing the jury, said, as reported in a Nottingham paper, "That "infant mortality in Nottingham was enormously great, and he had no doubt that one of the "chief causes was the practice of putting infants out to nurse; in fact, it was his conviction that in "many cases they were put out because the mothers wanted to get rid altogether of an incumbrance." It is added that "several of the jury expressed their concurrence in the coroner's remarks, and a "verdict of death from natural causes was returned." The coroner has since stated to me that this is a specimen of the kind of case constantly coming before him, and that he feels it absolutely necessary that something should be done to check so enormous an evil.

MR. WILLIAM RICHARDS, SANITARY INSPECTOR, NOTTINGHAM.

Previously to the year 1851 the town of Nottingham, in consequence of being surrounded by land subject to certain rights of common by burgesses, was densely crowded and the houses improperly built, about 8,000 being back to back dwellings, often in courts having but one entrance, and without drainage. At that time an Enclosure Act came into operation which allowed of the extension of buildings over the lands outside the town, which was before impossible. This allowed of great increase of factories and buildings of all kinds and also of trades and population which took place from about that time. From shortly before that time a system of sanitary improvements of all kinds in the erection of new buildings, opening out of courts, providing drainage, water, &c., has been actively pursued. The result is that the condition of the town is now wonderfully improved from what it was before this period. Nearly all the large warehouses, of which there are now a great number, date from within about the last 10 or 11 years. But though many of the warehouse rooms are large I should say that employment even in them is decidedly more injurious to health than that in dressing-rooms, where, though the air is hot, it is pure, and the people are in constant motion, instead of sitting still.

The following letter is taken from the *Nottingham Daily Guardian* of the 19th of March 1863, forwarded to me from Nottingham anonymously:—

Nottingham Warehouse Girls.

TO THE EDITOR OF THE NOTTINGHAM DAILY GUARDIAN.

SIR,—

I have been a lace warehouse girl about 13 years, and should know a little about the regulations of warehouses. Is there not an Act which compels the masters of factories to let children leave their employment at six o'clock at night? If there is, can any one tell me why this Act is not applied to lace warehouses, which are heated with steam, for children and young women are kept there at work from eight in the morning till seven, eight, and nine o'clock at night, for about 3*s.* 6*d.* to 8*s.* per week, which, in my opinion, is worse than slavery in South America, for I do not think they work above 12 hours a day; and if they do, they are better off than a portion of the warehouse girls of Nottingham, who have to work in cellars not fit for pigstyes, much more for human beings. When I use the word cellar I mean the lowest room of the warehouse, which is eight or nine feet below the foot-road; but to do justice to the lace masters in general, there are only a few who make their girls work in these holes. In rainy weather you can rub the wet off the walls; in dry weather they smell fusty and unhealthy. When the hands complain of the damp, the master or man orders the work to be taken up stairs, where it is dry. He does not think of the constitutions he is ruining; the work is of more consequence than the lives of his work girls. It is a rare specimen of self being first nature. When they have caught the rheumatics or one cold on another, which is the cause of half the consumptions, they have a recommendation for the infirmary given them as a salve. Hoping, for the sake of humanity, you will publish the above, I remain, yours, A WELL WISHER.

P.S.—If the Sanitary Inspector was to visit these places he would be of my opinion.

TABLE extracted from the REPORT of the NOTTINGHAM SANITARY COMMITTEE for the Year 1862, showing the NUMBER and PROPORTION of BIRTHS, and of ILLEGITIMATE BIRTHS, during the Ten Years 1850–59, in each of the subjoined Districts.

Name of District.	Total Number of Births.	Number of Illegitimate Births.	Proportion of Illegitimate Births in each 100 Births.	Name of District.	Total Number of Births.	Number of Illegitimate Births.	Proportion of Illegitimate Births in each 100 Births.
Nottingham -	22,612	2,272	10·04	Birmingham -	76,893	3,887	5·05
*Basford - -	26,413	2,396	9·07	Abergavenny -	24,385	1,168	4·79
*Radford - -	10,936	873	7·98	Merthyr Tydfil	38,393	1,709	4·45
Coventry -	15,225	1,073	7·04	Aston - -	31,621	1,242	3·92
Blackburn -	41,387	2,539	5·13				
Wolverhampton	49,061	2,776	6·65				

* These are districts adjoining Nottingham.—J. E. W.

TABLE compiled from the TABLES of the YEARLY REPORTS of the NOTTINGHAM SANITARY COMMITTEE, showing the NUMBER of DEATHS from PHTHISIS, with the AGES at which it has been fatal.

For the Year ending the	Under 10 Years.		From 10 to 15 Years.		From 15 to 20 Years.		From 20 to 30 Years.		From 30 to 40 Years.		Above 40 Years.		Total Males.	Total Females.	Total.
30th Sept. 1853	—		—		—		—		—		—		—	—	216
" " 1854	—		—		—		—		—		—		—	—	248
" " 1855	20		12		25		62		38		59		—	—	216
" " 1856	—		—		—		—		—		—		—	—	194
" " 1857	13		6		27		64		46		55		—	—	211
" " 1858	—		—		—		—		—		—		—	—	218
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.			
" " 1859	18	15	4	8	9	24	31	50	20	29	31	29	113	155	268
" " 1860	12	10	5	5	9	21	31	39	16	23	26	21	99	119	218
" " 1861	9	9	1	5	6	17	24	46	15	28	23	31	78	136	214
" " 1862	5	9	6	6	12	17	33	43	23	31	23	15	102	121	223

Lace Finishing. Nottingham. Mr. J. E. White.

TABLE compiled from the TABLES of the YEARLY REPORTS of the NOTTINGHAM SANITARY COMMITTEE, showing the NUMBER and PROPORTION of DEATHS under one year of age.

Number of Deaths in	For the Years 1852.* Of all Ages.	1852.* Under 1 Year.	1853.† Of all Ages.	1853.† Under 1 Year.	1854. Of all Ages.	1854. Under 1 Year.	1855. Of all Ages.	1855. Under 1 Year.	1856. Of all Ages.	1856. Under 1 Year.	1857. Of all Ages.	1857. Under 1 Year.	1858. Of all Ages.	1858. Under 1 Year.	1859. Of all Ages.	1859. Under 1 Year.	1860. Of all Ages.	1860. Under 1 Year.	1861. Of all Ages.	1861. Under 1 Year.	1862. Of all Ages.	1862. Under 1 Year.	Total, from 1 July 1862 to 30 Sept. 1862. Of all Ages.	Total, from 1 July 1862 to 30 Sept. 1862. Under 1 Year.
Byron Ward	99	44	379	120	381	139	307	94	331	130	307	115	461	146	497	152	355	113	381	125	310	99	—	—
St. Ann's Ward	125	48	467	120	486	126	459	96	480	138	476	126	567	154	635	154	542	140	562	178	556	146	—	—
Sherwood Ward	20	4	145	44	169	37	154	33	153	38	176	49	204	52	265	51	225	56	226	60	205	41	—	—
Park Ward	42	7	189	32	180	24	179	11	182	17	169	21	169	25	232	30	156	24	129	23	131	19	—	—
Castle Ward	30	11	187	50	169	50	130	30	137	43	127	42	145	43	216	54	151	41	155	49	129	34	—	—
Exchange Ward	46	16	199	58	236	66	172	51	174	61	178	71	222	84	271	78	189	55	211	81	203	66	—	—
St. Mary's Ward	47	20	280	80	223	71	164	48	168	63	190	63	228	75	285	78	154	56	176	62	164	48	—	—
Total	409	150	1,846	504	1,853	513	1,565	363	1,625	490	1,629	487	1,996	579	2,401	597	1,772	495	1,840	578	1,698	453	18,634	5,209

* From 1st July to 30th Sept. † The years end with the 30th of Sept. in each year, being counted from the 30th of Sept. previous.
Park Ward is inhabited mainly by the richer classes, Byron Ward and St. Ann's Ward by the poorer.—J. E. W.

REV. WILLIAM MILTON, INCUMBENT OF NEW RADFORD.

I have been incumbent of this parish for 17 years. The whole of my population, 6,000, is very poor. For instance, out of the whole number I do not believe that there are more than half a dozen families that can afford to keep a domestic servant. Nearly all are employed in the hosiery and lace manufactures. Young female labour in particular is in such demand that I find it impossible to get up a girls' school of any size. I have tried for the last four or five years, with several advantages in the way of help and good teachers, but I have not yet been able to get an average daily attendance of more than 20 or 30, and many of these come from an adjoining cotton factory, where they are obliged to attend some school. The eldest girl who attends is not more than 13, the youngest are about 7, the age when they leave the infant school. Even of those who do come the attendance is so irregular that they get but little real good. They scarcely get on enough to take any interest in learning, and many of them read but very imperfectly. Probably not much more than half can read fairly. The girls go off as soon as they can to the warehouses, which are more respectable and give better pay. Those who remain in the cotton factories are of quite the lowest and least capable class. There are more boys in the cotton factories, and many of them attend my school. I think that these half-timers get on quite as well, in many cases even better than the boys not employed in factories who attend the whole day. This may be partly from their being of a greater age. The other boys hardly ever stay after 11. Also, the factory regularity of attendance by the half-time boys is probably a great advantage.

At the present time, owing to the low state of trade, comparatively few children are employed in small private houses, and this number is, I think, gradually diminishing. The lace warehouses now have a large part of the children's work, drawing, clipping, and scolloping, carried on on the premises. This must be very beneficial for the children, because in a large warehouse they are not employed at such tender ages, there is more order, and public opinion can be brought to bear more on their condition. But at the present time there is probably but little excessive work. That occurs only when business is brisk.

Lace Making.

Samuel Dudson, age 11.—Is a threader at Cope and Ward's Lace Factory, New Basford. Used to work in the factory, but now works in Mr. Holland's, the foreman's, shop in the next street (George Street) and has done so since three days before the Act came in, *i.e.* about three months ago. There were 10 boys in his shift (the night) in the factory, and about the same in the other (the day). All the boys in his shift, *i.e.*, seven besides himself, under 13 went into the shop when he did. So did the boys under 13 in the other shift, *i.e.* about nine. Those over 13 stayed on in the factory. His shift works from 1 (p.m.) to 10 (p.m.) with tea in the shop while they are waiting for work, and on Saturday from 12 to 6, having dinner first. The other shift works from 6 to 6, and on Saturday till 2 each boy leaving in turn at 1 on one other day in the week. Has a brother aged 9 working in the same shift as himself.

Since they have been in the shop they have not been busy and the engine has not worked after 10 p.m. When they were in the factory the shift was from 2 (p.m.) to 12, but when the engine worked full time *i.e.* from 2 (a.m.) to 2 (a.m.), as it did from last winter up to nearly the summer, the shifts were each of 12 hours, viz., from 2 to 2 and 2 to 2. Mother sent him to school in the mornings for a bit, but thought it "too confining" for him, as he had to work on so late at night, so she teaches him writing at home. The shop in which they work is an old twist machine shop with plenty of empty room and a stove and gas.

[The mother said that this account was right and that her boy's health had been better since he had worked out of the factory, "where they got so much black lead on "their stomachs."]

Henry Redgate, age 12.—Is a threader at Cope and Ward's. Works in the night shift the same as the last witness. Since the Act came in he and all the boys under 13 in both shifts have worked in Holland's shop. One is, he thinks, about 7 or 8 years old. A boy of 14 works there also because there is no room for him in the factory, as one of the four (threading) tables there has been moved out into the shop. But none of them are allowed to go into the factory now, so he does not know how many thread there.

Had worked in the factory for about 1½ years up till last winter. His shift was from 2 p.m. to 2 a.m. or from 2 p.m. to 12 p.m. Had worked from 2 to 2 for about 10 weeks when mother took him away for a time, because the hours were "so unregular." Does not go to any school in the morning. When he

Lace Making. Nottingham. Mr. J. E. White.

worked till 2 he used to lie abed in the morning and get up perhaps at 1. When at Mallet's (Lace Factory) went to school 3 half days in a week.

[The mother said that she took this boy away because his father made so much of his being out so late, and said it was "almost more than he could bear" to see it, and to have to call him to send him off to work the same again.]

William Meadows, age 11.—Is a threader at Cope and Ward's. Went there at Whitsuntide and works in the night shift. (Gives the same account of the shifts as to numbers of boys and hours as above.) Two or three lads who work with him have told him that before they had been working in shifts from 2 to 2 each. A day or two before the Act began all under 13 went into Holland's shop, where they now work. Does not go to school ever except on Sundays.

[The father of this boy said that he had tried for a little while sending him to school in the morning, but the boy got up late, and as he was confined so late at night he would have no spare time at all to be out if he went to school. The above three boys, as well as the brother of one, knew threader boys in other factories at New Basford who all worked half time and went to school, which, said one, "they "liked the best," and they did not think that there were other threaders in the place working in shops out of the Factories.]

The following is a letter from Mr. T. West, Secretary to the Lace Trades Society, in answer to a question referred to in it.

North Church Street, Nottingham,
December 1862.

Sir,

In answer to your inquiry relative to the working of the Factory Act in lace factories, I beg to state that, taking it upon the whole, it has worked well, and I believe satisfactorily with a few exceptions. Mr. W. Felkin jun. Beeston, and Messrs Cope and Ward, New Basford, and a few others have taken their bobbins and carriages out of the factory to be threaded after factory hours and kept their children at work until 10 o'clock p.m.; occasionally Messrs. Cope and Ward have two sets and work relays or shifts. The last set, I believe, commence at 1 o'clock, p.m., and work until 10 if necessary.

When first the Act came into force in August last I heard that a few manufacturers worked their winders and threaders over factory hours even in the factories, which caused others to complain, but at the present time I cannot find any infringing upon the Act. There are a few evading it by taking their bobbins and carriages out of the factory to be threaded as above described.

Trade is now in a very depressed state and has been so for the last two months nearly. All the machines are either working short time or standing altogether for orders, and in consequence there is no inducement to infringe the Act.

I am &c.
Thos. West,
Secretary to the
Lace Trades Society.

J. E. White, Esq.

Isle of Wight.

At Mr. Nunn's lace factory at Newport, in the Isle of Wight, described in the evidence under the former Children's Employment Commission, the machines are still worked by men. About 12 boys, all over 13, are employed as winders and threaders, but, there being two sets of bobbins, are stated to be never kept after 8 p.m. About 30 females, all over 13, and all in the dressing-room over 18, are employed in finishing. The usual hours are from 8 till 7 in summer, and from 8 till 6 in winter, with an hour for dinner.

MESSRS. M'PHERSON AND VORLEY'S, FALCON SQUARE, ALDERSGATE.

Lace Finishing. London.

The bonnet front manufacture alone is carried on here, but on a large scale, about 200 females being employed. The processes in which heated and impure air is often so largely produced, viz., the gauffring and the making-up, are here carried on in rooms apart from one another and from the other processes. Also, the making-up is done by means not of gas heated machines, but of presses under which passes a pipe heated by steam. About 75 females closely placed work in this room, but no unpleasant heat or air was noticeable. Ventilators have been placed in the roof and there are windows which open.

In part of the gauffring process young women stand with a strong jet of steam close in front of their faces, which must, as one of them told me, make them very hot.

There is a small separate establishment in the Barbican.

Mr. John M'Pherson.—We employ about 200 females. Of these probably less than a fourth or a fifth are under the age of 18, and only a very few who come to be with their mothers or friends are under 13. We do not wish for them so young.

The usual hours of work are from 9 o'clock till 7. A few of the best hands who are finishers may at times stay till 8 or 9, but never later than that, though formerly when we had fewer they may have done so. But the younger are never kept, and the elder can go on without them, because about a day and a half's stock is always kept in hand ready gauffred, so that it only has to be made up and finished. It does not get spoiled or damaged by keeping even for 3 or 4 days.

A limitation of hours to about 12 with meal times included would make no difference to our business.

We once tried some of the gas heated making-up machines instead of the kind which we now use; but the women and girls did not like them and the work could not be done so well in that way, so we gave it up. The heat of the gas machines is very great. The making up room here would be unbearable with as many of them in it as there now are presses heated by the steam, and I feel sure that the greater part of our best workers would not stand working with them but would sooner give up.

Making-up machines of any kind have not been in use more than 6 or 7 years, and largely only for about 4. The gauffring machines have been known for about 15 years. We had the gauffring machines in the same room with the making-up presses, but put them in a separate room because they made the other too hot, and the ventilators were added. An improvement has also been made by not allowing the steam of the pipe, by which the presses are heated, to escape into the room as it formerly did.

There are a large number of bonnet front manufactories in London, perhaps 100 great and small, including many with a very few hands, perhaps half a dozen persons only, but the smaller places are now dying out.

Lace Finishing. London. Mr. J. E. White.

I visited two other bonnet front manufactories in London, and called at a third, a large factory like building, which had closed early. The facts however which I observed did not differ from those already stated in regard to such places of work, except that at one the room containing the gas machines, the front and back parlour of a common street house, was unusually dirty.

Tiverton.

MESSRS. J. HEATHCOAT, & CO.'S LACE FINISHING DEPARTMENT, TIVERTON.

Mr. Hallam (*a member of the firm*).—The only six children here under 13 employed in the finishing department, viz., 2 boys who go errands for the menders, and 4 girls menders in the brown, all go to school for half days. All persons under the age of 17, employed either in the factory or in the finishing department, which form parts of the same premises, who do not go to school in the day as half-timers, are expected, but not compelled, to attend school for one hour four nights in the week. Attendance was formerly entirely voluntary. The age was extended from 16 to 17 when a second night in the week (Wednesday,) was given free from school. The school, which is paid for entirely by the firm, has a master and 17 monitors as teachers under him; the instruction is in reading, writing, arithmetic, geography, and for the girls sewing also. No person however is taken into the employment of the firm at all who cannot read and write. The effect of the school is very beneficial.

No children or young persons are employed in the dressing room. Women are preferred for that, as being steadier than girls. The floors are frequently cleaned, and the health of those who work there generally good.

The limitation of hours in the factory occasions no difficulty, but a limitation in the finishing department would make a little. Enough lace is always kept in stock to allow of orders being met without excess of hours, but lace is not dressed and finished till it is actually wanted, because it loses stiffness, and, if white, colour also. When large orders have to be completed more hands must be put on, as was the case last season, and some parts of the work, as folding and carding, take a little time to learn. "Flossing" however, *i.e.* running a thread round the edge of lace, in which a great part of those under 18 are employed, is not hard to learn.

The ventilation and warming of work rooms is a matter of great difficulty. Women will not bear to have windows opened. The difficulty is to get fresh air without cold, and to carry off the bad.

Mr. Joseph Foster.—Has been master of the Messrs. Heathcoats' school for 7 years. There are now in the night school about 170 girls, and from 90 to 100 boys, between the age at which they cease to be half timers and 17,—except a few over 17 who prefer to remain in the upper sections of this school to going into the over age class. The latter contains about 35 young women. This class and the two first sections of the school are taught singing. Geography, grammar, and English history are also taught in the upper classes, and in the rest reading, writing, and arithmetic.

On the day of my visit the greater part of the finishing or warehouse hands had left early, but I examined a girl 15 years old (Ellen Berrer) and found that she had been employed in the place six years, attended the evening school, and gave signs of being well trained both in manners and learning.

Chard.

MR. J. B. PAYNE'S, LACE MANUFACTURER, PERRY STREET WORKS, CHARD.

Mr. James Hall.—Is managing clerk here. The silk lace, which however is not made here constantly, is mended by females, but generally above the age of 15 or 16, as under that age they cannot do the work well. Their hours are usually from 9 till 6, with a dinner hour. Mending silk lace is very tiresome to the eyes, especially by gas light. Other lace is given out to women to mend in quantities as much as each can do in a fortnight. Some of these take a girl as a learner for a month, but girls are not employed upon it otherwise. When mended the lace is sent to Nottingham to be finished. The factory of the Messrs. Heathcoat, at Tiverton, is, he believes, the only one place in the west of England at which lace is finished.

At Nottingham, where he lived many years, the mistresses used to keep the children at work as long as they liked, as they must finish the orders. Some of them made much money out of these children, paying them not more than 7*s.* 6*d.* where they received 1*l.* for doing the work, and one realised enough, from this source only, to build a row of small houses. It is to save this profit that the work has been taken so much into the warehouses there of late.

If one part of the lace employment is under law all ought to be, a girl mending as much as a girl winding. Finishing work requires great care and causes a great strain upon the eyes.

On inquiry at the two other lace factories at Chard, those of Messrs. Wheatley, and of Messrs. Gifford, Fox, and Gifford, I found that in the former only one young person was employed as a mender, with 19 women, and in the latter women only, some of the lace being also given out to women, and that the lace is then sent off to Nottingham to be finished. I am informed that the same is the case at Barnstaple, the only other lace factory in the West of England.

Pillow Lace Making. Honiton District. Honiton.

PILLOW LACE MAKING.

MRS. GODOLPHIN'S, LACE MANUFACTURER, HONITON.

Mrs. Godolphin.—Is a lace-manufacturer. Takes orders from wholesale houses and warehouses or private families, gives out patterns to the lace-makers, and sells them their thread. The lace-makers work in their own homes or in schools. The lace is made on pillows, in small separate pieces or "sprigs," some extremely small, and made by the dozen, which are brought back to her, and are then "made up," by joining them together, either on the pillow by lace, or by the needle, or by sewing them on to net. Unless very busy has this done in her own house. It is considered the best part of the work, and the best paid, and is generally done by young women, children not being suitable for it. Girls might learn this at 12 years old, but they go to learn lace-making at 6 or 5, and many towards 7. They usually go as apprentices to schools for three years, paying nothing and getting nothing, except perhaps, after a time, a garment once a quarter, and not paying for the lace which they spoil. They do not work a full day for a year or more, and in winter leave off by candle-light. A full day is from 8 to 8, with an hour for dinner and half an hour for tea. The number and size of the schools depends upon the state of trade, the rooms in good trade being filled till they will hold no more; but for the last two or three years trade has been very slack.

Has no young persons in her house now, and never takes any under 12, but sometimes has a few under 18 working with the women. Work is often wanted in a hurry, and must be finished to send by post, and then

439

Lace Finishing.

Honiton District.

Honiton.

Mr. J. E. White.

they work late. They cannot do so often, as they would get drowsy and spoil the work, and would not do more than if they did not work late, but for a single night they would not mind sitting up till morning. Has had them sit in her own house till 2 or 3 in the morning, but not later, some of them perhaps being girls. Even apprentices working overtime would get paid for it.

In Honiton the work is brought in when it is done, very often on Fridays, and then paid for in ready money, and the people are thus able to buy their food and goods in the market on Saturday, But in most of the villages money is not paid, but the lace-shops truck and charge very high, *i. e.*, above the ordinary prices, for their goods. Sometimes, if the lace-makers press for money, and say they must have it, it is given to them, but something is taken off, as 2*d.* in 1*s.* This practice of trucking is the greatest evil in the trade, and ought to be stopped.

Mary Griffin.—Adult. Is "making up" on the pillow. Went to a lace-school at six years old as apprentice; three years is the proper time to be apprenticed for. For the first year she worked from 9 till 12 and from 1 till 4, and afterwards had a task of nine hours set, and if it was not done in time had to stay to finish it, but never stayed very late as apprentice. The work is rather trying for the eyes.

MRS. DAVEY, LACE MANUFACTURER, HONITON.

Is one of the three lace manufacturers here, and employs lace makers here and in most villages for 10 or 12 miles distance. (Gives the same account of the system of manufacture as Mrs. Godolphin above.) Has heard people speak of children beginning lace at 3 or 4 years old, but should think 4 was as young as they did. The greater part of young women and girls in the town are lace makers. Keeps some at work all the year round, taking the risk of losing by change of fashion. Can frequently alter the lace into new patterns. When orders are given in a great hurry, as for weddings, both women and girls are obliged to work early and late, from breakfast or earlier to 12 at night; but they are pleased to do it.

MRS. CROYDON'S, LACE SCHOOLMISTRESS, HONITON.

Mrs. Croydon.—Has a lace school of five girls, between 12 and 18 years of age, who are "wages girls," and get from 1*s.* to 3*s.* 6*d.* a week, and three women, "sitters," who work for themselves, but pay her for sitting in her room, thread, having their patterns pricked, &c. Had an apprentice of five years old, but she was not kept so strict as the others. The common age for girls to come is 6, and for a year they work from 8 o'clock till 4, with an hour for dinner. After that, they sit in summer from 6 in the morninng till dark, and in winter from 8 in the morning till 9 at night, or longer if busy. "We've "worked up the whole of the night," *i.e.*, till next day, but she has not kept girls under 12 or 13 late. If you promise the work, you must do it. Her hours here are now (winter) from 8 a.m. to 9 p.m., with an hour for dinner, and half an hour for tea.

The schools now are much fewer and smaller. It does not pay so well now to take apprentices, because they cannot be bound, and their parents take them away to see what they can make by them. An apprentice for three years has a new apron at the end of the first year, a new pair of shoes at the end of the second, and a new frock at the end of the third, or something of this kind. A girl coming older as a 2 years' apprentice, does not often get anything.

Sarah Ann Fuzzell, age 17.—"In my 18" (looks about 14). Went to a lace school at 5 years old: there were several other girls about the same age there. Worked "the same hours as mistress has told you;" means from 8 in the morning till 4 in her first year, then from 6 in the morning till dark in summer, and from 8 in the morning till 9 at night in winter, having time for dinner and tea.

Was at an infant school; has always been to school on Sunday; and goes two evenings in the week in winter, from 7 o'clock till 9, and one in summer, leaving work on purpose. Reads in the Bible at school, but not without spelling; has to write a hymn; did multiplication and addition.

[Is too timid to read when asked.]

Of the five others whom I examined here, one began lace at 8 years old, two "in their six," one who came when 7 had been at work about 2 years before, another began when 6, and at 8 years old worked for the same hours as last witness.

MRS. STEVENS', LACE SCHOOLMISTRESS, HONITON.

Close outside the door is a sink smelling strongly, and the air on entering is very close.

Mrs. Stevens.—Has one sitter and two scholars. The eldest, aged 14, can make 2*s.* 3*d.* a week; the youngest, aged 10, 1*s.* It takes a child 3 years to learn, but they are not put so little now as they were, trade being so bad. These come in summer at 6 a.m. and leave generally at 7 or 8 p.m., not often later, with towards two hours' for meals, and in winter come at 8 a.m. and leave at 8½ or 9 p.m. They have what is called nine hours work given them to do. It is a pity that any child should sit after 8 p.m. Has herself got up at 4 o'clock and sat "till I couldn't see a pin," both when she was little and since she was big. But that is "force put,"—you could not keep at it. Sat up last night till 12, and till she was freezed with the cold (it was a slight frost), but did not keep the children.

Caroline Perry, age 14.—Went to a lace school when 5¾ years old, and the two other girls there were both younger. Went from 9 o'clock in the morning till 12, and from 2 till 4, for the first year, and afterwards in summer from 6 in the morning to 7 or 8 in the evening, and in winter from 8 in the morning till 9 at night; never stayed after 9. Went home for breakfast, dinner, and tea, 2 hours in all, but took her dinner short when there was more work to do, and did not always go to tea. Had no time to go to dinner to-day, but stopped 20 minutes to eat it here, and will have no time for tea to-night, as the lace must be sent off to-night.

Goes to school on Sunday, and on Thursday night from 7 o'clock till 9, to read, write, and spell. Reads (very little); can write from a copy-book "not very "well;" added figures and did her tables. Does not know how many inches there are in a foot.

Mrs. Stevens (continued).—To-day is sending in day, the lace being sent by post to London and the money returned. If not sent now it cannot be sent till next week, and no money had.

It is great folly of parents to keep their girls without schooling, as they do, just for the sake of their bringing home a little money, which can be earned at lace sooner than at anything else.

ANN WATERS, HONITON.

Pillow Lace Making.

Honiton District.

Honiton.

Mr. J. E. White.

Went for 3 years to a lace mistress at 7 years old. Her hours were in summer from 7 a.m. till 4 or 5 p.m. in her first year, and till 8 p.m. in her second, and in winter from after breakfast till 9½ p.m., with an hour for dinner and half an hour for tea.

Mary Waters.—Mother of last witness. Another of her children went to a lace school but had to leave on account of her health. The doctor said it was very bad for her eyes and her stomach. The child cried to go to Sunday school but the doctor would not let her go out. Her children are delicate.

REV. J. A. MACKARNESS, RECTOR OF HONITON.

Most of the young females in the town, the population of which is 3,300, are engaged in lace making, and in consequence leave school early, *i.e.*, at about 7 or 8 years old, and the lace mistresses like them to be apprenticed at 6 years. But owing partly perhaps to the state of trade, and partly to the parents coming to value education more, probably they do not go quite so early now as they did. The payment at school (National) is 1*d.* a week, or 2*d.* with writing taught.

Even now those who do the best kind of lace work are fairly employed, but the others only very poorly and irregularly. The bad workers who cannot get their work taken in the town have to take it for sale into the villages, where the truck system is very general, and which they must therefore submit to.

MISS SPRATT, MISTRESS OF THE NATIONAL SCHOOL, HONITON.

Out of 201 girls and infants (boys and girls) on the books, the average attendance is about 150. The eldest is 13 years of age, there are 2 or 3 over 12, and 11 over 9. The girls who make lace leave this school at 7 or 8 years old, and others come backwards and forwards, according as there is more or less lace work for them to do in the town, and this interferes very much with their teaching. Many go as apprentices at 6 years old, which in the opinion of the lace mistresses is the best age, but these generally do not come to school at all. Many of the lace makers depend for teaching entirely upon the Sunday and night schools.

The night school is for those above 11 years old and those who do not come in the day, who are principally lace makers. There is a class of young women in it who are just beginning to read and scarcely know their letters. Most of the Sunday scholars are lace girls.

Miss Avery.—Has a class of 11 at the night school, nearly all lace makers between the age of 11 and 16. Some read fairly without spelling, some spell words of three or four letters, all can form letters, and some make figures, and two do addition. This is the worst class in the school.

Miss Hillyer.—Has a class at the Sunday school of 11 females between the ages of 15 and 25, most of whom are or have been lace makers. The best reader could not read more than a verse, if that, without spelling; several spell most words. If they are learning a hymn she has to teach it to them orally. This is a class formed for those who are backward of their age, and their backwardness is owing to their not having been cared for.

Sidbury.

MRS. HARRIET WHEEKER, SIDBURY.

Girls usually go to lace schools as soon as they can just hold a pillow. They work for their mistress in the first year, as well as pay her 6*d.* a week. Afterwards they pay a little less and work for themselves, and after 5 or 6 years leave and work at home, or sitting about in sets of 6 or 7 at friends' houses, both for the sake of warmth and also of helping one another in making out a pattern.

The worst fault is that the lace shops get the profits of the work. Nearly all the lace manufacturers in the neighbourhood keep general shops, and make the lacemakers take goods for money, though I have heard of one of the large dealers who pays half in money. They will only give out these goods on certain days, as once or twice a week, the days here being, I believe, Wednesday and Saturday, and then not what the lace makers wish, but what they, the manufacturers, like to allow and think needed for actual use. Thus two loaves of bread and ½ lb. of butter form part of a common weekly allowance to girls. The object of this is to prevent the people from selling the goods again and so getting any ready money, which would enable them to be independent, and buy anything which they might wish for at other shops where they could get it better. Sometimes a manufacturer actually refuses something that is asked for, on the ground that it cannot be wanted for use but for sale. The other day a girl, who had been working long hours to earn more, came and asked me if I would buy from her a pound of white sugar for 6½*d.* if she could get it, 6½*d.* being the proper market price, though the price of this sugar would be put down to the girl herself at 8*d.* Still for the sake of the ready money she wished to do this, but was unable to get the sugar, the manufacturer saying that she did not need it for her own use. On the same ground manufacturers are very jealous of their girls working over hours for anyone else, and will ask a girl what she had a light so late at night for. Sometimes a few girls, say four, will club together to make a collar or something, and get a few shillings in money by selling it privately, but if they are found out in this they are turned out of employment by the shop. The lacemakers feel this very much, and I have seen them even crying because they are not allowed to get any money.

Besides this, it is expected that the other members of the family shall buy their goods at the shop to which the girl's lace is taken. An instance of this occurred just lately, when complaint was made of a child, who had been sent on an errand, being seen to enter another shop. I heard a mother complain lately of one manufacturer being so exacting in such ways that her children should never work for this shop again "if she could help it."

In addition to this the goods are charged to the lace makers at unfair prices. I know of boots bought at a shop for 5*s.* a pair being sold to the lace girls for 10*s.* 6*d.*, and of other cases of the same kind. Every article is charged against the lace-maker at her shop (*i.e.*, that to which she takes her lace) something over the price paid by other people. Calico which I get for 7*d.* would be 9*d.* or 10*d.* to a lace girl; lump sugar instead of 6½*d.* the lb. would be 8*d.*; candles ditto; bacon is always 1*d.* or 2*d.* a pound dearer to them; and other things in like manner, and all the year round.

I wish that Government could do something to stop this: it is so cruel. I could myself if I had capital to spare.

Any shop that would pay ready money and sell on fair terms would make a fortune, and it would be much better for all.

Pillow Lace Making.

Honiton District.

Sidbury.

Mr. J. E. White.

The busiest time is in summer. Quite young girls do not sit up then all night, but those just growing up do, if the shops have orders.

[This witness, at my request, went out and asked a lace girl whom she knew, what she was charged for candles of the same kind, and bought at the same shop, as those bought by witness, and from her answer the difference of the prices was precisely that stated above, viz., 8*d.* instead of 6½*d.*]

MRS. AMELIA CLARKE'S, LACE SCHOOLMISTRESS, SIDBURY.

This room is small for the number who sit in it, viz., 18 girls and the mistress. By a rough measurement it is about 9 ft. 4 in. one way, and a little less the other, and 7 feet high. But taking it as 9½ feet square this gives under 632 cubic feet of space, or 33 cubic feet for each person. It was said by the sister of the mistress to be "very headachy," though the mistress would not allow this. When there is a fire girls must sit close into it, but the mistress said that she then put something over a chair to screen them. On the day of my visit, though in winter (3rd Feb.), there was no fire, but a cloth in front of the fire-place to keep off the draught, as the girls are so close under it. They had just left work.

Mrs. Amelia Clark.—Has 18 scholars when all are well, but some are generally absent because they are not well. Takes them from 6 or 7 years old. Their mothers put them to it a deal too early, but are driven to do so. Girls generally stay with her 8 or 9 years, *i.e.*, till about 16 and not beyond 17, and are then as good workwomen as herself. At first 2 or 3 hours a day is enough unless the child is very quick, as it is very trying work to teach them. In the first year they get to about 5 hours' work, and after 3 years work from about 7 a.m. to 6 p.m. in summer, and from 8 a.m. to 8 p.m. in winter with dinner hour, and they never stay later, though sometimes to oblige them a mistress will let girls take their pillows home at night if lace is much wanted. Though it is against rules, some bring breakfast with them, as it is so long for them to sit without eating, and they get very cold.

For the first 2 years they pay 6*d.* a week, and 4*d.* afterwards, but if they get behind in their payments she lets them make it up afterwards. For the first 6 months or so she takes their work, but it is of scarcely any value. The other girls or their families take their own work to the shops and receive the goods.

There are four manufacturers in the place. As they run a risk in taking in so much lace they do not like to pay for it in money, but pay by goods from their shops instead, though it would be much better if all were able to pay money. The manufacturers sometimes fix the price of a piece of work before it is made and sometimes after. 3*s.* 6*d.* would be a very good week's work, but the earnings depend upon the kind of patterns as well as the way in which it is worked.

Nearly three parts of the girls in the place are lace makers, but they do much less now, and parents do not care to put their children to school, (lace) and there are only two lace schools instead of four, and smaller. In the small villages near there are schools conducted in the same way. She left school herself at 13 years' old, and within a year or two sat up all night at work many a time, and others would do the same now if the work were wanted. Boys used to make lace here.

ELIZABETH PING'S, LACE SCHOOLMISTRESS, SIDBURY.

Elizabeth Ping has had a lace school for 30 years, and has had 35 scholars, but has only 12 now. Keeps them from 7 or 8 years old until they are nearly grown up. Reckons that a child must stay 2 years if she comes at all. After six months they get big enough for the day's work of from 8 a.m. to 6 p.m. with dinner hour, but in winter they go to tea and come back and work till 7.

A girl of 8, after paying for her schooling, thread, and patterns would not clear more than 5*s.* in her first year. After 3 or 4 years if she were a good girl she might reach 3*s.* or 4*s.* a week. The "sewing on" is done by women, seldom by girls. The manufacturer who buys her lace pays money if witness wishes for it, but this is not generally the case in the trade.

Julia Pine, aged 13.—Was at a lace school, lately shut up, and had the same hours as now. Was at a week day school when 5 years old for a short time, and goes on Sudays. Can read (only the shortest words and slowly).

Harriet Perry, age 15.—Went to learn lace at her aunt's at 10 year's old with only one other girl. Was at the national school for some years before and goes to school one evening in the week to write. Can read write, and sum.

Ellen Diamond, age 11.—At the national school from 6 to 8 years old, and then to lace school: school on Sundays also. Reads "plentiful," &c., that means "not very scarce." Never did any writing or sums.

MRS. HAYMAN, LACE MANUFACTURER, SIDMOUTH.

Sidmouth.

Formerly employed girls from 12 years old and upward, and young women in her house in "making "up" lace, but now gives all this out.

Sells threads, pins, bobbins, &c. to the lace makers, but supplies them with the patterns free. It is not the custom to pay for the work all in money. Pays them herself half in money and sells plain goods, as calico, fustian, &c. for the rest. Gives all in money occasionally, but never took off anything for doing so. Has heard of that being done, and considers it very cruel. Some pay all in goods. Some have been fined for trucking, and indeed it was carried to a shameful extent.

Formerly children used to have to go as apprentices for 7 years, and went at 5 or 6 years old, and after their 7 years went 6 months to learn finishing. They had a task of so many hours set as a day's work, and if it was not done by 5 it must be by 10, and if it was not finished by a fixed time more was set. Though not at a regular school herself, but with a friend, she had her task set, and was kept without supper if it was not done. Was obliged, however, to give up the work, which hurt her health, Used to shiver at it. The doctor said that if she did not give it up she would go into consumption.

Besides the lace there has been a good deal of braid-work done in the town of late.

There are five public schools in the town, open on payment of 1*d.* a week. All children ought to be obliged by law to go to school.

MR. SAMUEL CHICK, SIDMOUTH.

Pillow Lace Making.

Honiton District.

Sidmouth

Mr. J. E. White.

Is engaged in the Honiton lace trade, his father being a manufacturer. This lace is made chiefly in a district of about 18 or 20 miles long and 9 or 10 broad, lying on the coast each side of Sidmouth. The schools are more in the villages than the towns, but many of them have been broken up lately. It is a most irregular business. In spring almost more is wanted than can be made, and other times very little is done, except for special orders.

A large quantity of pillow lace of a thick kind, called "guipure," such as used in church ornaments, is made near Dublin, and lace is also made near Limerick, both in much the same way as the lace is made here.

One characteristic of the Honiton lace is the fineness of the thread. From a calculation which he made he found that 1lb. of such thread, of about No. 260 size, would reach for 150 or 160 miles. In the Brussels lace some is used as fine as No. 700. The very fine threads can hardly be seen unless by putting them over something black, and working with them is killing to the eyes.

HARRIET CHANNON, SIDMOUTH.

At $4\frac{3}{4}$ years old went as apprentice for three years to a lace school of 30 girls in Sidmouth. At first had only 4 or 5 hours in the day, and read an hour. One taught another reading and lace making both. 5 or 6 was then the common age for going as apprentices. She let the pillow fall twice her first day because she was not big enough to hold it. After she had been a year at school she was put to 12 hours' work in a day.

If work was wanted they had to sit up all night, for which they would get a few halfpence. Was about 12 or 13 when she first did so. Never sat up more than one night at a time then, but since she has been married has sat up two nights running. Had meal times at school, but if busy perhaps would choose to stay and work instead.

Children are not put so much to lace here now, as a living cannot be made by it. Some things which would have been worth 1*s.* are now perhaps worth about 3*d.* Saw a sprig yesterday, which would take 4 hours' work, but the price of which was only 2*d.* With a full week's work of 12 hours a day she could not now make more than 4*s.*, and less at some work, but formerly could have made 8*s.* in the same time.

Little children are now put as apprentices to braid work in the same way that they were to lace, but only for a short time, as three months. This work is done by sewing braid on paper, so as to make patterns (filled in with lace).

Lace making tires the eyes very much, especially black, and she found it so at first, and her eyes were very bad for six months till she was used to it. You have to use all the sight you can. When her little girl, age 9, began, though she only worked between her school times, perhaps half an hour before dinner and an hour in the evening, it made her eyes run very much. She (child) goes to the reading school and pays 2*d.* a week for it, as she is learning to write on paper. Before that paid 1*d.*

Emma Channon, age 9.—Has learned lace making at home for a year, but goes to school (not lace) also, and has been since 4 years old. Has only missed three half days in 4 years. Goes also to school and church on Sundays, and to the Independent chapel in the evening because there is no church. Can read and write. (Shows neatly written copy-book.) 9 times 9 is 33—is 53. Has got "bags of comforts" and books for prizes at school.

MARY ANN PAVER, BRAID-WORK DEALER, SIDMOUTH.

Is a braid dealer. Braid is a kind of work that has been made for about 13 years, by working braid together so as to imitate Honiton lace. Children begin to learn this at from 6 to 9 years old, some at 10 or 11. They would take to it younger if there were more work.

The general rule is for them to be put as apprentices to it for 12 months for whole or half days. A girl, but not a child, could learn it in 12 months. At some places there are one, two, or three such girls, and have been 9 or 10 together.

Their regular hours are from 8 a.m. to 8 p.m., with an hour for dinner and half an hour for tea. If she were busy, to oblige her they would work later. Has had girls up in this house to 10 o'clock, 11, 12, and 3 a.m., all night sometimes; but never employed any under 15, and has none now. Has sat up three nights a week for several weeks together; that was generally in the summer.

Began lace at home at 9 years old, her sister at 6; and at 12 years old went for 12 months as apprentice to learn "putting together." There were eight or nine other girls. Their hours were from 8 a.m. to 8 p.m., with an hour for dinner and half an hour for tea, but if they were busy they sometimes worked in meal times, getting paid extra for doing so, but generally worked later at night instead. At that place has stayed at night till 10, 11, 12, and till towards morning, and once for a wedding order all Saturday night. There was one other girl under 18 besides herself. Was paid 1*s.* a week for the first three weeks, and 2*s.* a week afterwards.

Pays ready money to her workers. Some do not. Some pay half in clothing, a quarter in grocery, and a quarter in money. This is a bad plan, and of course, the shops get the money in this way.

[This witness's home is a general shop.]

MRS. TAYLOR, BRAID-WORK MANUFACTURER, SIDMOUTH.

Braidwork is done chiefly by girls of from 9 years old to 18 or 20. Employs a little girl or two sometimes, but has none now. (Gives same account of the work and hours, &c. as last witness.) The greater part of the girls here work at lace or braid, but their wages have fallen to about a third.

It is a pity that they should work so much at lace, because they become weak sighted, especially if they begin young, and their growth is hindered by their being so "crumped up" with the pillow. Some little creatures are quite cripples from it.

Braanscombe.

REV. L. GIDLEY, CURATE OF BRANSCOMBE.

Nearly all the girls in this place, the population of which is about 1,100, are at lace work, and usually begin at about 6 years old in the lace schools. In most of these the mistresses profess to hear a little reading. There are no week-day schools, except infant dames' schools, and a writing class on Saturday afternoon, on which there is no lace work done. These girls can just read, but scarcely know the meaning of any but simple words.

The girls can earn out 1*s.* 6*d.* a week, but out of this have to pay 4*d.* for schooling (lace), and pay for thread, pins, pricking patterns, &c. besides, and get hardly anything clear.

At Otterton, which has a population of about 1,300, the employment was carried on much in the same way.

MRS. MARY ANN GAY, SCHOOLMISTRESS, BRANSCOMBE.

Pillow Lace Making.

Honiton District.

Branscombe.

Mr. J. E. Whit

Keeps a school of little readers. The common age to begin lace here is 7, some going as apprentices for a year and a half, others for a weekly payment, but the age depends on the child's health. Has known some children put to it at 5 years old, but only by cruel parents, though it is surprising to see what little girls can do, and what nice little sprigs they make.

Children in this place are delicate, and from always working at lace are not so strong as if they were running about. When little things are brought to sit by the hour so long their constitution is broken up. It is very trying to them, and every year as they grow older their hours increase, and they are obliged to work more and more.

The work is very trying to the eyes too when it is fine, and just lately a very fine kind has come in.

There are four lace shops here, and all keep grocery and drapery. Has heard that the smaller even will give 6*d.* or so in money instead of their goods, if it is wanted. (A neighbour asserts that the smaller shops will not do even this.)

SARAH JANE PERRY, BRANSCOMBE.

Makes lace. Went at 6 years old as apprentice to a lace school of 12 girls. Only had to work 4 hours a day for her first year, but she could not sit long, because it did not suit her, and she very often had dreadful headaches from keeping her eyes steadfast upon the pillow. Her eyes used to ache dreadfully, and so they do now very often, and her eye-sight is weak.

Has been at four lace schools. Most girls change about because the parents think a mistress is not strict enough, and does not bring their children on enough. At some of these she worked in winter from 8 or 9 in the morning till 11 or 12 at night; and in summer from 6 or 7 a.m. to 7 p.m. Has gone in the morning before 6, and once at 3, having been at work till 10 the night before, and up till 11. Worked on all through this day till 8 or 9 at night, only stopping 10 or 12 minutes for breakfast, about 20 for dinner, and taking her tea at her pillow. Was 16 then (half a year ago), but working at school on her own account, and none of the others worked as long.

Has many a time sat at work through the night, and first did so when about 13 or 14, taking her pillow home from school at night. It is when an order comes that she works so. Is a quick worker, but the most she has made is 3*s.* or 3*s.* 6*d.* in a week. Her parents have all that she earns. Cannot get enough to put in the Post Office bank, and indeed does not get paid in money much. The best kind of work is paid for in ready money, but for all other you cannot get more than 2*s.* 6*d.* in money out of 12*s.* worth of earnings. The smaller shops give no money.

Knows of one girl who was put as apprentice at a lace school at 4½ years old. She was clever, and worked hard, but was delicate, and the work hurt her health, as witness heard, and after two or three years she died of brain fever. This child only worked her 4 hours a day, and had a very kind mistress. Has heard her (the child's) mother say that she would never send another child so young. Went to a reading school. Spells easy words. Does not know the figure "2" in large print. Other countries, besides England, are, Australia, California, France.

[This account of this little girl and her death was confirmed by two other witnesses, and a fourth person acquainted with the facts stated that the girl's mother did not send her next child till she was 9.]

MRS. ELIZA WOODROW, LACE SCHOOLMISTRESS, BRANSCOMBE.

Has had 17 scholars, but only 6 working here now, 3 under 13, 1 other under 18, and 2 above. Takes children at 6 or 7 years old. They should not work a full day, 9 hours, till after a twelvemonth, and are not capable of sitting by candle light till 10 or 11 years old. If work must be done elder girls turn night into day. It is not so much worth children's while now to learn lace, and they do not go so young. Her maid went at 5½ years. (The father says it was 5.)

ANN PURSE, LACE SCHOOLMISTRESS, BRANSCOMBE.

Has twelve lace girls, from 9 or 10 years old up to about 16. A task of 8 or 9 hours is set, and they never come by candle-light, though they did formerly. Does not have learners or apprentices now, because there is no sale for children's work. The room in which they work (shut up now) is much larger than this (a room of about 12 × 10 feet), and the windows open, but there is no fireplace. It is too close sitting to want that. Has had 17 or so in it. Has known two or three children begin lace making at 5 years old, but they must be big healthy children to do it.

Her girls read verses of the Testament in turns when they come in the morning; five or six of them can do so without spelling, and the others can read the easy words.

A labourer here (Samuel Coombs) stated that his wife had three or four lace scholars, one about five years old when she came. The wages of farm labourers in the neighbourhood he stated to be 8*s.* a week and three pints of cider daily; and that till the last two or three years the wages were 7*s.* (See statement of next witness.)

REV. MAMERTO GUERITZ, VICAR OF COLYTON.

Colyton.

Colyton is a small town, the greater part of the female population of which are engaged in lace-making; and it also is a centre to which lace is brought from villages as much as five miles round. There are several lace schools, perhaps six or seven, and the children in them are quite young, the youngest perhaps 6 or 7. The girls leave off work at 8 or 9 in the evening, when they are seen coming out to walk; but the youngest are not kept very late, because they are not of much use. But in the houses lights may be seen very late at night, especially towards the end of the week, indeed nearly all night.

I am convinced that the effects of lace-making, as carried on here, are very injurious in several ways. In the schools it is unhealthy from the small size and crowded state of the rooms, the air of which is stifling. But apart from this, the work itself, which involves such long-continued sitting and stooping over the pillow, injures the chest. Consumption is prevalent amongst the people, and to a great degree in later life. Some of the girls, in carrying their lace in to be sold, which some have to do for nearly five miles, get much exhausted and nearly faint on the road.

The employment also lowers the morals by making

Pillow Lace Making.

Honiton District.

Colyton.

Mr. J. E. White.

children early independent of their parents, girls of 16 or 17 going off to live by themselves. It diminishes the wages of the men, the farmers giving less in proportion as the wives and daughters earn something on which the family may be supported. The common labourer's wages here are 8*s.* a week and some cider. Also the employment is a great obstacle to education.

Till a year or two ago there was no week day school, and now the elder girls do not average more than 9 or 10 years of age. There is also a night school now, but it is not well attended. About 250 attend the Sunday school, and most of the elder girls there can read.

The lace makers are to a great extent paid by truck, the work being all in the hands of people who keep shops of some kind. I once tried to induce some of the London lace houses to give out the work direct to the makers, instead of through these agents, but they would not.

Seaton.

REV. CRADOCK GLASCOTT, VICAR OF SEATON AND BEER.

The female population of Seaton, and of Beer, which is a hamlet of it, are largely employed in lace making. I believe that the general practice is for children to go to a lace school at 5 or 6 years old as apprentices for four or five years, after which they work at home.

The employment interferes much with their education, for, though they attend Sunday school fairly, this is insufficient, and girls rarely stay at week day schools beyond the age of 8 or 9. They grow up untaught, and ignorant of plain household duties such as sewing, washing, &c., and this makes it difficult to get situations in service for them, though I endeavour to do so; and when they marry, as they do very early, they are quite unfitted for it, and unable to nurse and bring up their children properly. The children not being taught obedience there is but little parental authority; but that depends perhaps, in part, upon the character of the male population, who are noted as seamen.

The employment is injurious to the bodily health, owing to the confinement in small close rooms, with no fireplace or ventilation, and the consequent impurity of the air.

The truck system prevails here in the lace trade, and is very injurious in its effects, one being that girls dress very showily, being obliged to take part of their pay in clothes.

MISS COLES, SCHOOLMISTRESS, SEATON.

Is mistress of the infant school here, supported by a lady, at which boys may be kept till 9 years old, and girls till 10, for the weekly payment of 1*d.*, or $\frac{1}{2}d.$ if there be more than one child of the same family. There are about 60 girls and boys in equal numbers, but there are not more than about a dozen girls above 7 years old in the school. They do not leave for lace making younger than that, but most of the girls in the place go to either lace or dress making.

MISS MAJOR, SCHOOLMISTRESS, SEATON.

Is mistress of the national school here. The number of the girls, *i.e.*, from 20 to 25, is only about half that of the boys. Children are taken between the ages of 2 and 14, but about 10 only of the girls are above 6 or 7.

MRS. BESLEY'S, LACE SCHOOLMISTRESS, SEATON.

When I first entered this school the girls had left for dinner, but the room was offensively close, and though the day was fine and mild the window was not opened in the interval. The room, which is built on to the back of the cottage apparently for the purpose, as it is much like some other lace schools which I have seen, opens only into a passage, is nearly square, a little over seven feet each way, and six feet six inches high, and containing, in fact, a little over 330 cubic feet, and there is no fireplace or means of warming. The average number of scholars is seven, and three grown-up daughters of the mistress also work here. The entire number working together has been 12, but it was not stated whether this ever happened in the small room. In summer, the large living room is used. Twelve people in the small room would have 28 cubic feet of space each.

Mrs. Mary Besley.—Takes about seven girls, more or less, from 6 years old upwards, which is the usual age for beginning lace, some as apprentices who for a year and a half give their work for their teaching, and afterwards pay 4*d.* a week, and have their own lace. They are set 10 hours' work, *i.e.*, about from 7 a.m. to 7 p.m. in summer, with two hours for breakfast, dinner, and tea, and from 8 a.m. to 8 p.m. in winter, with meals. But sometimes in winter they cannot do half a day's work, on account of the cold, and in summer they are hindered by their hands being so warm and sticky. They will not be able to work in the small room much longer (*i.e.* than the beginning of February), because it is so close. They never work out of doors, even in summer. Girls, as soon as they have left lace school, and young women, work all day, and they like to do so away from home, as they do not get so much talking to from their mothers.

Maria Besley.—Is daughter to last witness. Learned lace making at home at 6 years old. Some put their children to it at 5, but she wonders they have the heart to do so. One of that age at school with her went for four hours a day at first, and after a year from $8\frac{1}{2}$ a.m. till 5 p.m.

Generally begins work now after breakfast, *i.e.*, between 8 and 9 o'clock, and works till 10 p.m.; but this winter she has worked many times till $11\frac{1}{2}$ and 12 p.m., and in summer till 5 and 4 in the morning, and sometimes all through the night, without going to bed, or stopping at all, except just to take anything in (to eat). Dare say she was 16 when she first sat at work all through the night. (Looks but little above that now). Other girls in the place work and sit up in the same way (her sister confirms this). Is obliged to work as hard as this, and is glad to do so.

"This work tries any one's head." Has headaches: they are common among lace makers. It also tries the eyes, and sometimes they cannot get on at all by candle light. One "eight" (*i.e.*, 8 to the lb.) dip candle serves for three of the big workers to sit round, and for four of the younger girls who make plainer work.

Emily Westlake, age 13.—Began lace making at 7 years old, and was at a week day school for a year before that, and goes to Sunday school. Knows the letters (and no more), but no figures (when shown) except "1."

[The sister of this girl, aged 9, did not begin lace till 8, and can spell.]

MRS. COPP'S, LACE SCHOOLMISTRESS, BEER.

Pillow Lace Making. — Honiton District. — Beer. — Mr. J. E. White.

The work-room here, judging by eye, is about 10 feet square and 6½ feet high, and the number of persons usually in it, 10. There is a fire-place.

Mrs. Copp.—Has 9 lace scholars, all from 9 years old up to 13, but takes them at the age of 7 or 6. Some come as apprentices for a year and a half, and afterwards pay 3½*d.* or 3*d.* a week. Others have their own lace and pay 1*s.* a week for the first quarter, gradually diminishing afterwards. At the 6 other schools in the place children begin at about the same age. They begin working for about 4 hours in a day and increase gradually till the end of their first year, after which they work all day, from 8 in the morning till 10 at night in winter, and in summer begin at 6 or 7 in the morning. Her little girls here (two aged 9, one 10, &c.) if they finish their work before 10 p.m. will leave, if they do not, will stay, but she never keeps school after 10, and they do not stay later unless they ask. Thinks that late enough. At other schools girls of this age are not allowed to sit up late unless to finish work. In summer they run home and get their breakfast as soon as they can at about 8, generally take an hour for dinner, but only just take their tea and off again.

At 13 or 14 girls leave school and work sometimes at home, but more generally in one another's houses in sets of 12 or 16, working 4 to a candle, or sometimes 3. They pay about 2*d.* a week for this, and sit as long as they please. In summer they work from 7 or 6 in the morning, or earlier, till 8 or 7 or 9 in the evening, or, if busy, till 11 and 12, or sometimes all night, according as the work requires.

The work is carried in to a large manufacturer every week or fortnight, and bread, tea, sugar, candles, soap, &c., but not often clothes, given in return. They ask for what they want. Sometimes if they want 1*s.* or 6*d.* they can get it.

Mary Ann Mutter, aged 12. Went to a lace school as an apprentice for a year and a half at 6 years old, and at first sat for 4 hours a day. Did not work by candle-light till her apprenticeship was over, about Michaelmas, girls usually going as apprentices about Easter. Then she worked all day, and till 10 at night. At some places they are a little later.

Can read (easy words) but not write. Learned at the infant school (Stokes'). Her eyes never hurt when she is working at night.

[A great part of this statement was supplied by the mistress, the girl seeming unable to remember or answer.]

MRS. DRIVER'S, LACE SCHOOLMISTRESS, BEER.

This, though called a school, is not a place for teaching, but merely for lace-makers to meet and work in. Eight persons, two elderly, and one middle aged, all wearing spectacles, and most of the others grown up or nearly so, work here in a room of about 10 × 8 feet and 7½ high without any fire-place.

Mrs. Driver.—The common time for these lace-makers to sit here at work is about 14 hours, viz., from 6 a.m., to 8 p.m. in summer, and from 8 a.m. to 10 p.m. in the winter. Her granddaughter, (next witness, a girl of 12,) "holds her candle with the rest "of us at night,"—seldom after 10, never till 11 as they are tired by 10. In some schools of this kind they sit till 12 regularly, when they have work, so as to have it finished to carry in to the manufacturer, which they can only do on certain days; 6 or 7 is the proper age for children to learn, but some go at 5, not all as apprentices.

Mary Ann Northcote, aged 12. Went as apprentice for a year and a half to Mrs. Jenkyns' lace school here, at 9 years old. For 3 months worked only 4 hours, for the next 3 months 7 or 8, and then a full day. There were 14 girls, some of about 7 years old and others older, up to 14. Three were apprentices, the others paid 1*s.* a week at first, then 8*d.* and so on.

Could earn 3*s.* a week by the time she left (lately) but had it out in groceries from the manufacturer, unless lace was wanted in a hurry and then money could be had, and sometimes you can get a little if you want it particularly.

Has always kept at the Sabbath school and can read a chapter well.

MRS. AIGLAND'S, LACE SCHOOLMISTRESS, BEER.

This is a mixed school consisting of 3 children, 2 girls over 13, and 7 young women just grown up.

Mrs. Aigland.—The young women stay on here till they marry, getting a little instruction still and paying about 2*d.* a week for this and the candles, &c. All come here at 8½ or 9 in the morning now, and work till 11 usually, but the young girls leave early. When they are busy they generally sit one night in the week till 2 or so, and "are obliged to." An average amount earned by working in this way through the week, *i.e.* from 9 to 11, is 4*s.* 6*d.*

Elizabeth Ann Searle, aged 18. Has sat here till daylight and worked on next day, but not often; gets tired afterwards and is obliged to give over.

[Another remark upon this "We must work just as we are told to."]

Elizabeth Hockin, age 14. Works like the rest till 11 at night, never past 12. Always has as much as an hour for dinner.

Leonora Chant, age 9.—Came here as apprentice when 7, at about Easter. Does not sit by candle yet, but will next winter. Can make 1*s.* 6*d.* a week. Was at the endowed school four years, and learned to read, knit, and sew, not to write. Does not know any figures. (Reads only very short words.)

MISS COX, MISTRESS OF THE ROLLES ENDOWED SCHOOL, BEER.

Free education and clothing is given at this school to 20 boys and 20 girls, from the age of 4 up to 10. Boys generally stay the full time, and wish to stay longer, but it is an uncommon thing for a girl to remain in the school after 9. They commonly leave between 8 and 9, and go to lace work.

MISS LYDIA STOKES, MISTRESS OF THE INFANT SCHOOL, BEER.

There are 20 girls and 29 boys here now, which is about the usual proportion. The ages run from 2 to 7. Girls commonly go to lace at 6 years old, and some parents are obliged to put them, but it is a great injury to their learning. Most of the women and girls in the place get their bread by lace. Young women and half grown girls often work several together in what are called schools, though not really so. Believes that the people can get part of their payment in money if they want it.

Pillow Lace Making.

Honiton District.

Newton Poppleford.

Mr. J. E. White.

MRS. WOODLEIGH'S, LACE SCHOOLMISTRESS, NEWTON POPPLEFORD.

At this house I found 8 lace girls, the usual number being stated to be 9 or 10, at work in a very small room, which serves also at the same time as a school for a boy of 10 and 6 infants. The room is only 8 ft. 11 in. long, 6 ft. 10 in. broad, and 6 ft. 10 in. high, and there is no fireplace. The smell from the crowded state of the room was almost unbearable, even without the full number present. Taking the dimensions in round numbers as $9 \times 7 \times 7$, or slightly larger than the actual, the cubic space per head for 18 persons is $\left(\frac{9 \times 7 \times 7}{18\ 2}\right) = 24\frac{1}{2}$ feet. A small opening has been made through the wall into the larger living room to let in air in cold weather, when the door to this living room is shut.

Mrs. Elizabeth Woodleigh.—Has eight lace girls, the two youngest aged 9, under which she seldom takes them, the eldest 13; her usual number is 9 or 10. They come at 8 or 9 in the morning, and leave at 6 p.m. except in winter, and then leave by dark. One of them is an apprentice for a year, and came last Lady Day, which is about the usual time of year for coming. The rest pay 6*d.* a week, for six months; then 4*d.*; then $2\frac{1}{2}$*d.* or 2*d.*

They have the lace which they make, and sell it at the lace shops, of which there are only two in the place, and which are also grocery and drapery shops, and these goods must be taken in exchange for the lace. "I assure you they make them pay for it." It would be much better if money were given.

All the children read when they come in the morning and when they leave in the evening, the big girls out of a chapter, the younger out of a little book.

[All the girls when asked, said that they could read. One (*Eliza Woolley*, aged 9) pointed out as the most backward, read short words easily and figures also.]

MRS. ASH'S, LACE SCHOOLMISTRESS, NEWTON POPPLEFORD.

This room is small, 6 ft. 6 in. high, and without a fire-place, and allows rather less than 70 cubic feet of air to each of the girls of from 6 years old up to 10 and woman whom I found in it; and the air was close.

Mary Ann Ash.—Is daughter to the mistress. The girls work from 8 a.m. to $4\frac{1}{2}$ p.m., never by candle light till they are 12 or 14. They pay 4*d.* a week at first, afterwards less, and have the lace which they make.

The girls read here once or twice a day for a quarter of an hour, but they cannot all read. One can spell the letters but not sound the word. None of them can write. Two are just beginning.

MRS. CHICK'S, LACE SCHOOLMISTRESS, NEWTON POPPLEFORD.

The room here is large, and but half filled. There are eight lace scholars, the youngest "on for 7," the eldest 14, and also two little readers, infants.

Susan Chick.—From 8 a.m. to 5 p.m. is "the ruled time" for coming to work, and for the little ones from 10 a.m. to 4 p.m., with an hour and a half or two hours for dinner, "like as readers."

The common age to begin is from 6 to 7, but it is according to the constitution of the children. Some cannot stand the trial of puzzling over the work, which takes thought. Went herself as an apprentice when she was just 5, for four hours a day, for about a year, and then from 8 to 5. "Trawley" work was made then, which children can do better.

All the girls here can read a little, but three can do but very little.

[The three children just mentioned, aged one 8, the other two 7, read one syllable words slowly but without spelling.]

Otterton.

MRS. CAROLINE HAYMAN, LACE MANUFACTURER, OTTERTON.

I am the principal lace manufacturer here, and take the work of from 30 to 40 girls and young women, chiefly between the ages of 6 and 20. They bring in a piece of lace as soon as they have done it, every day and sometimes twice a day,—it may be as little as a couple of pennyworth,—and beg you take it, that they may get something to eat.

I have a grocery and provision shop, and pay them in my shop goods, and the five other lace manufacturers in the place have shops and do the same. None give money. I feel obliged to let them have something, but they are so poor that I can scarcely ever get them out of my debt.

There are several lace schools in the place. Children usually go at about the age of 6, and sharp children sometimes at 5, paying 4*d.* a week at first and 2*d.* afterwards, or, if they cannot afford this, giving their work for the first twelvemonth for their teaching. The usual hours are from 8 a.m. till 6 p.m., and if the children have not done their work they are kept till 8. Learners only go from 9 a.m. to 5 p.m.

After leaving school at night the girls will often bring me the work which they have done, being unable to pay for any tea till then. Children usually stay at school till 14, or 15, or 16, and are then steady enough to work by themselves at home.

Big girls sometimes work several together, four to a candle, for the sake of saving expense and for company. These sets are not called schools, but they usually work from 6 o'clock in the morning in summer till dark, and in winter from daylight to 10 p.m. They leave off working by candle light at Easter and begin in October. If I were busy they would sit at work for me till 1 or 2 in the morning, and have done so. They would not sit all night through, because I should get extra hands instead. Wedding orders are often the cause of this late work, as they are usually in a hurry.

After the lace is made and brought to me I have to get it put together and the pattern filled up, and I give it out again for the purpose to young women, girls not being skilful enough for this work.

There is Lady Roll's charity school in the place for 60 boys and girls, and a school of about 50, supported by a lady, one of the Brethren (Plymouth ?), where some of the children are taught lace as well as other learning; and there is also a school of about 12 little readers, kept by an old lady of more than 70 years old; but these are the only schools.

Pillow Lace Making.

Honiton District.

Otterton.

Mr. J.E.White.

SUSAN MILLER'S, LACE SCHOOLMISTRESS, OTTERTON.

The six girls at this lace school, the youngest of whom was 7, the eldest 15, the others 10 and 11, began lace work either at schools or at home, three at 5 years old or under 6, two at 6 years old, and the remaining one at 7, and the mistress herself before she was 5. The eldest girl, 15, who began at 5, spelled very short words. The room is small and low, but has a fire-place.

Susan Miller.—The girls come at 9 or 8½ a.m., and leave at 5 p.m., having an hour for dinner. They pay 2*d.* a week, or, if learners, 6*d.*

MRS. SARAH ROSEHILL'S, LACE SCHOOLMISTRESS, OTTERTON.

The usual number of girls at this lace school is 10. Of the eight whom I saw, all between the ages of 7 and 13, five began lace at 6 years old and three at 7. The room is large and has a fire.

Agnes Perryman, age 7.—At lace a year. Comes at 9 or 10 a.m., and stays till 4 p.m, or, if she has not finished her work, till 4½. Pays 2*d.* a week. Learned reading at an old lady's school, but nothing else. (Reads one syllable words.) Goes to school on Sunday.

Harriet Robins, age 13.—Comes at 8 or 8½ in the morning and leaves at 5. Never stays by candle-light. Reads here every day to her mistress for a quarter of an hour or a few minutes.

LOUISA BASTIN, OTTERTON.

Has put six of her children to lace schools, and all at 6 years old, which is the common age. Some mothers put them a little earlier. For the first 3 or 6 months they sit about 4 hours in a day, then 6, then 7 or 8, and by about 10 begin to work by candle-light. Her children went to different lace schools, and all learned there to read a little without spelling.

MRS. ANSTEY'S, SCHOOLMISTRESS, OTTERTON.

This is entirely different from the ordinary kind of lace schools in which lace making is the chief, if not the sole object. In this the object is education, but lace making is taught to those who wish to learn it instead of sewing. In other respects the place has the appearance and character of a parish school.

Mrs. Anstey.—The school contains about 50 girls half of whom learn lace and the remainder plain work, and 30 boys. All learn some reading and writing and none pay more than 2*d.* a week, the school being maintained by a charitable person. For the elder girls, viz., from about 7 to 15 the hours are from 8 a.m. to 5½ p.m. A few girls come here from the common lace schools. They can read but very little indeed, and can never do anything beyond reading and have no discipline. In the national school here there are no girls, and in the infant national school about 40 boys and girls.

Harriet Power, age 8.—Began lace making here two years ago. Can earn about 1*s.* a week now. Can read (but little) and is learning writing.

ANNA WEALSMAN, LACE SCHOOLMISTRESS, OTTERTON.

Has 19 lace scholars (away now) and these between the ages of 7 and 15. A few come at about 6 years old, most a little after. The elder stay from 8 o'clock to 5, the younger from 9 to 4, with dinner hour. They pay 2*d.* a week and have their own work. Some are taught at home. They change from one school to another very much.

They all read to her when they come in the morning, each about 10 or 12 verses, and most of them can read pretty well.

ANN WESTCOTT'S, LACE SCHOOLMISTRESS, COLATON RALEIGH.

Colaton Raleigh.

Amongst the girls here there was one "in her seven" who had been here for about two years. She could read easy words.

Ann Westcott.—Has 8 lace scholars, most of them from 10 to 13 years old. The common age to begin lace here is 5. Three of those children learned at home. A child sits 4 hours only in the day at first and gradually increases.

The lace is taken in to a shop and the money taken out in goods; that plan is a great pity.

All the bigger girls read to her together for half-an-hour at dinner time from the Testament, and the two little girls, age 6 and 8, from the Psalter.

There are 20 girls at the national school here, and lace is made there. The minister has allowed this for the last 2 or 3 years because it was allowed at a school near kept by the Brethren.

TREADWIN'S, LACE MANUFACTURER, EXETER.

Exeter.

Miss Smith.—I am a relation of Mr. Treadwin's and help manage the business. The only young people employed on the premises are three or four girls of from 12 to 15 or 16 years old, who "rip off sprigs." *i.e.*, remove patterns from one piece of lace to be transferred to others. These girls grow up to be transferrers, &c., in whom more skill is required. Their hours are from 8 a.m. till 8 p.m., with an hour for dinner and half-an-hour for tea; they sometimes leave at dark in winter, but never at any time stay beyond 8. There is also another work room where some women and about 10 young persons are employed for the same hours as those just named.

The lace branch of this business is regular, and arrangements can and ought to be made in dull times for providing against the busy, so that the hours are not varied, unless for convenience from 8½ a.m. to 8½ p.m., but they do not exceed 12 hours. It is very different from the millinery and dress-making branch with which I am also familiar, in which the hours cannot be kept so regular.

Till a year or two ago a lace school of from 15 to 25 girls was kept by Mr. Treadwin in a room taken for the purpose in order to train up a set of lace makers suited to this business. No scholars were taken younger than 10 as, after trying different ages, it was found that from 10 to 12 was the best age to begin. It is not necessary or even desirable to begin younger than 10. It takes 7 years to make a thoroughly good worker. The hours of the school girls were the same as those of the others at work in the house.

A mistress was paid to teach these children reading, writing, and a little arithmetic in the evening from 6 to 8, but they did not seem to care much about it, and their attendance being voluntary was irregular, and the lace school was given up, partly I think on that account.

Pillow Lace Making.

Honiton District.

Exeter.

Mr. J. E. White.

There is only one lace dealer in Exeter besides, but lace is put up for sale in some grocers' and drapers' shops.

It is the custom in the Exmouth district, and as I understand generally in the trade, for shops where the lace is bought to pay for it in goods, though this is not done universally.

Honiton lace is, or used to be, all made in separate sprigs, which are afterwards joined with the bobbin or needle, or mounted on other lace. Thus the sprigs can be made up into one pattern, and afterwards without injuring anything but the connecting pieces, which are of less value, made up into others. But the arranging these patterns requires great nicety and experience and cannot be done by a girl.

The district along the south coast of Devonshire, as far west as Exmouth, is the chief district for Honiton lace, but a little of the same kind is made on much the same system at one or two places in the North of Devon, about Chulmleigh.

MRS. ALLEN, QUEEN SQUARE, HIGH WYCOMBE.

Bucks.

High Wycombe.

I was brought up to lace making from 6 years old, and have been more or less engaged in the lace business for about twelve years, partly as agent for a Nottingham manufacturer, and also on my own account. Owing however to the declining state of the trade I discontinued that branch of my business a year or two ago, and my sister for the same reason has discontinued her lace school.

As agent I used to go weekly from here to the neighbourhood in which I was brought up (Risborough, Bucks) and buy the lace brought in by the makers from 6 or 7 villages round. The cards (parchment patterns) and silk were found by that manufacturer without any charge. When buying on my own account I had to buy the cards and silk from the wholesale buyers, to whom I sold the lace, and I sold these materials in turn to the lace makers, taking the value out of the price of their lace, which is the usual custom still.

The lace is principally made in the villages, and taken by the small shops there in exchange for the lace making materials, (except pillows, which are bought elsewhere) viz., patterns, silk, cotton, pins, bobbins, &c., and grocery and drapery. In a village of 40 cottages there may be two or three such buyers, each keeping a little shop, and in other villages none, in which case the lace is taken to a shop in a neighbouring village.

The shopkeepers, or "boxwomen" as they are called, bring in the lace in boxes to the wholesale buyers, from whom in turn they generally get their own grocery and drapery, &c. Some of the lace makers who live nearer deal with the wholesale buyers direct, but much on the same plan, except that a wholesale buyer makes rather more money payments, particularly if he wishes to get a large order completed quickly. The small shops have to pay so dear for their own goods that they cannot afford to make money payments, and only do so when trade is very good to a small extent, giving perhaps 1*s.* or so at a time; but the lace makers like best to have money and so to be able to buy their own goods where they please, and will all go to the shop at which they can get any money, so that when one shop in a place begins paying in money, as they do sometimes in a good time of trade, others must do the same or be left without lace. Whenever a payment in money, for either the whole or any part of the lace is made by either the wholesale buyers or the shops, a discount is first taken off at the rate of about 1*d.* in the 1*s.* in the payment to the lace makers, with perhaps a skein of silk given in, and at the rate of 6*d.* in the 1*l.* in the payment to the box-women. The latter would loose their custom if they did not give as good a price for lace as the wholesale buyer, and the discount charged to them leaves them so little profit that they are obliged to charge a discount to the lace makers in turn, and to make up the rest out of the profits of their goods. The cost of the material is considerable. In this neighbourhood the lace is chiefly black, and for black only silk is used. In yard lace, *i. e.*, narrow as distinguished from fancy, of the average kind such as this (pattern shown), for which a lace maker would now get not more than 1*s.* a yard, the cost of the silk would be 3*d.* and the cost of the card, which if used till worn out would last for 40 or 50 yards and could then be copied by pricking a fresh at a smaller cost, 4*d.*, and more in proportion for wider lace. But when trade is bad, the price paid for lace is of course low, and the patterns also are constantly being changed, which is not the case when trade is good. Consequently when lace makers are earning actually least they have to pay a larger proportion of the whole value for materials. The price of silk is always the same within 1*d.* or 2*d.* in the ounce, viz., the fine black silk, of which most is used, 3*s.*6*d.* and the coarse 2*s.* The cost of cotton is less, not more than about 1*d.* in the 1*s.* of the value of the lace.

If these are bought from either the wholesale buyers or the shops with money actually brought in the hand, they are sold at the market price, which would be about 4 skeins of cotton or 1 skein of silk for the penny, but if, as must usually be done, they are paid for out of the value of the lace brought in, something is taken off for discount, so that about 3 skeins of cotton are actually given for 2*d.*, or less than half the proper amount; at any rate unless all the value be taken out in goods of some kind. The lace makers "call out" more at this than anything, and say that it seems so hard to have their money taken off in this way, as soon as ever they take their work in, without getting the benefit of it.

In rare cases lace is made of other materials, as straw, horsehair, and, as I have heard, gold and silver thread; and also mixed with other substances, as bead-work, but some of this, though called lace-work, is scarcely so, being made on a frame instead of on a pillow.

The machine-made lace is now so good, and answers most purposes so well, that the pillow-lace seems dying out in this neighbourhood, and in the town itself there are few except old lace-makers. But in most villages there is a lace-school, to which in better times children go commonly at the age of 6, for a weekly payment of about 6*d.*, gradually diminishing as they improve down to 2*d.* At first a child goes from 9 o'clock till 12 and from 1 to 4, but cannot sit for the whole of this time, indeed not for more than half-an-hour together. Some mothers, who do not wish their children to sit too long, and who can afford to do with less earnings, give directions how long their children are to sit at a time. Afterwards the girls go at 8 or 7 a.m. and leave at 5 p.m., never staying later, as the mistresses wish to have their house clear, and the schooling money would not pay for candles; but children in winter take their pillows home. A woman cannot look after more than twenty children, and often has not room for more than a dozen, the schools being in the cottages.

To become good lace-makers children must begin quite young, not necessarily so young as 6, but their parents want their earnings, and will not give these up when trade is good to let their children be at other schools, though in most villages there are national and other schools to which they could go for 1*d.* a week or so. By 13 or 14 they are too big to be kept at the lace-schools, and are quite "master" of their work, and sit at home, or two or three together, but not in larger schools. A girl of 8 may be a nice little lace-maker, and working nine hours a day could get in good times 2*s.* 6*d.* a week, but now not more than 1*s.* 6*d.* A girl of 13, a fair worker, working 10 hours a day could not now get more than 2*s.* 6*d.* in a week, or 3*s.* at the outside; and in preference to working so hard for this, they now all go out to service as soon as they are big enough, or take to other employments, if there are any, as here to "caning," *i. e.* making chair bottoms.

When they are about 12 or 13, or so, to encourage them to work more, their mothers will allow them to

keep for themselves all that they earn over a fixed sum to buy their dress, &c. with.

Lace-makers are more hard-working than any other class, but sitting so long makes them grow up weak, and the work hurts the eyes, particularly by candle-light. It is most wearisome work, and makes the shoulders and neck ache so. Lace-makers complain a good deal of pain in the side, and unless they take care of themselves then, and get out in the fresh air, and take exercise, it may make them go off, *i. e.* into decline. But the more they *can* earn the more they *will*, and the more they have worked in busy times the more they work. If they sit a whole hour only earning a halfpenny, it is discouraging, and they are not likely to sit so long. I scarcely see any who have worked regularly at lace who are strong or fit for much, though of course there are some who can stand anything. Nine hours a day, however, is quite as long as any female ought to sit.

Lace-makers can generally read well, though they have not much time to learn writing. In all lace-schools the girls read twice a day, generally from the Testament, or some Scripture lesson-book, the little ones sometimes learning a hymn besides; and these readings are seldom missed, and attention is paid to them by the mistresses. From what they learn in this way and in Sunday-schools, and also on Saturdays, when many of them go to school for half, or in some cases the whole day, I should say that there is not one lace-maker in twenty, whether grown up or a child, that cannot read, and though they are taught little else, that is the foundation of other learning. I never heard of any lace-makers in the villages round who could not read, though in this town there are many grown-up people who cannot, and generally the children in the villages are much better taught than in the town. I learnt writing myself when a lace-girl by going for an hour every evening to school, when there was one, and going on Saturdays in the day, and can do all the book-keeping and writing of my husband's business, (a respectable shop in the town).

Pillow Lace Making.

Bucks.

High Wycombe.

Mr. J.E.White.

Lace-makers are also usually good reckoners, from their habit of counting their pins, which they do to see how much work they can do in an hour, or who can work the fastest. They reckon by the number of pins in a "head" of lace, *i. e.* in a length forming a complete pattern; after which the pattern is repeated in a fresh head. They are set so much to do in an hour, and each hour the mistress calls round to find whether they are behind, and how much. A quick girl of 13, in some patterns, can stick up 600 pins in an hour, but they are set a little under what they can do at the full stretch, or they would get behind in case of any accidental stoppage. I could reckon in this way myself much quicker than any one could with a pen. Besides this, they have to reckon how much work they do, and how much it is worth, counting the yards and odd quarters, and the odd pence and halfpence. A child would do so. Now that the little learners can earn so very little by lace, parents spare their children more to stay at national schools till 8 or 9 years of age.

My statement applies to the lace district from here to Thame, about 15 miles in length.

MR. THOMAS GILBERT, LACE MANUFACTURER, HIGH WYCOMBE.

I am pillow-lace manufacturer, employing lace-makers over the greater part of southern Buckinghamshire, and an adjoining strip of Oxfordshire, and in these districts there is no other lace manufacturer or buyer of importance. The greater part of the whole pillow lace trade is in the hands of three or four large manufacturers.

I employ about 3,000 persons. They are not absolutely engaged by me as workpeople, but I sell them the materials, *i.e.*, patterns, and silk or thread; and there is a mutual understanding, though no legal obligation, that I should take all lace for which I have sold the patterns, whether there be demand for it or not, and that the lace-makers should bring it to me, and not to any other buyer.

The value of the lace brought in by each lace maker is entered in one column in a book in this way (*shows book*); in another column is the amount of fresh material and patterns taken out; in another the amount of goods as grocery and drapery, if the lace-maker likes to take any instead of money; and in another the balance paid in cash. From some I buy in their own villages, travelling round for the purpose, an account of the value of the lace sold, and the fresh materials taken being kept in the same way (*shows book*).

In some places I do not deal directly with the lace-makers themselves but through the agency of small buyers, to whom I supply the materials and patterns, and who in turn deal with the lace-makers in the same way as myself. These small buyers, who have general shops, have a way of giving goods on credit for lace before it is brought. It is a bad plan, but one that many adopt in villages.

The earnings of children are a great inducement to parents to put them to lace as soon as they can contribute anything to the support of the family, commonly at about 6 years old. Till the elder children reach this age a family is only expense, but a mother with some of her little girls at lace may make nearly as much as the father.

The number of lace schools, however, is now much diminished, and in the villages which I visit in my rounds a larger number of British and national schools are now being started.

Machine lace is constantly pressing upon pillow lace, and the only means of keeping the latter manufacture alive is by constantly introducing new designs and kinds of lace as fast as the old are made on the machine, which is often within a very short time after a new pattern is out. A manufacturer, therefore, cannot succeed without considerable skill in design. The manufacture has decayed in Northamptonshire in consequence of a want of progress of this kind in the manufacturer.

EMMA GINGER'S, LOOSLEY ROUSE.

Loosley Rouse.

Is a lace maker. Mother has a lace school here, and has had 30 girls, but has only 5 or 6 now; girls go so much now to a new school started a year ago by a lady, where they are taught lace for one half of the day, and other things the other, and pay 1*d.* a week.

Her mother always teaches her girls reading twice a day, each girl reading about two verses, which is enough for those who cannot read well. Out of 20 girls, the eldest being 14 or 15, there would be several who would read a verse without spelling, and there would be none who could not read at all, except, perhaps, the little ones, just come, at 4 or 5 years old or so. These youngest are sometimes taught reading four times a day at first. Children generally get to read even from a lace school only. Some mistresses do not think so much of it as others, but most mothers wish their children to read.

The elder girls come for about 8 hours in a day, the little ones 5 or 6. They pay 2*d.* a week, but more as learners.

Some children have begun lace at 4 years old, going to a lace school for it; but at first they only sit a quarter of an hour at a time learning the stitch, but the general age is 5 or 6.

Eleven hours is the ordinary lace-maker's day. Neighbours will come in and sit round one large candle; some have sat all through the night.

Makes about 4*s.* a week (is a young woman), but out of this new thread and pattern must to be paid for. That is the outside of her work. (Another woman says 3*s.* 6*d.* would be about the average.) If the pattern only lasts a month or two, there is a good deal out of the 1*s.* to pay for new cards.

MRS. WRIGHT, LACE BUYER, PRESTWOOD.

Pillow Lace Making. — Bucks. — Prestwood. — Mr. J. E. White.

Keeps a general shop here and also takes lace. Gets the patterns and materials from the manufacturer and supplies them to the lace makers, whose work she superintends, not allowing any of the patterns to be seen by any but those who work for him.

Lets the people take goods on credit, to be paid for out of their lace when they are able to bring it. It is not a good plan, however.

MR. BENJAMIN LACEY, LACE BUYER, PRINCES RISBOROUGH.

Princes Risborough.

Is a grocer, draper, and lace buyer here. Risborough is the centre of a lace district, and lace is made, and there are lace schools, in most of the villages round. (Gives the same account of the lace schools as Mrs. Allen in speaking of the same district, but names a slightly earlier age for the children leaving these schools.)

Sells patterns and materials to the lace-makers, and they sell their lace where they please as their own, but it is generally expected that they should sell the lace where they buy the patterns. Sometimes pays them some money, but often in goods, or partly in one and partly in the other.

Lately other schools have been started, some by private persons, for general learning, in which a person is employed to teach lace also, which, when made, belongs to the children's parents. The payment at these is about 1*d.* a week. One reason for combining lace instruction with these establishments probably is its necessity as a means of inducing children to come at all, which many otherwise would not.

Believes that in lace schools children are really taught to read, and that more attention is paid to this now than formerly. Accounts for this by the fact that education is becoming more general amongst all classes, and he finds a great difference in this respect within his own memory. Should say that as a fact most of the lace children can read.

MRS. SANDERS'S, LACE SCHOOLMISTRESS, PRINCES RISBOROUGH.

Mrs. Sanders.—Has kept a lace school 45 years. Has had 20 girls; has now only five, the youngest aged 6, the two eldest about 12 or 13, and gets only 2*d.* a week each, instead of 3*d.* or 4*d.* as formerly.

Has had three learners at once only 5 years old, but that is almost too young. She could not teach them as she should; 6 is the best age, you can beat it into them better then. If they come later after they have begun to run in the streets they have the streets in their minds all the while. Her hours are from 8 o'clock to 5, when light so long without candles, with dinner hour.

The girls read twice a day to her, about seven or eight or five verses, according to the time there is. She must keep them to that: it is as much (consequence) as the work.

Her girls can generally read "quite comfortable." Believes that reading is taught at most other lace schools. There is only one other small one in the town now.

The lace which she is making will be 1*s.* 9*d.* a yard, but she really believes the silk for it takes within a farthing of 4*d.* The manufacturer, who comes round and buys, makes her take the silk, and for five yards of lace gives 1*s.* 6*d.* worth of silk, and takes this out of the money to be paid. He takes nothing off for discount. If lace is taken to the shops the value must be taken out in goods.

Has had inflammation in the eyes and cannot see well.

Fanny Simms, age 12.—Takes her lace to a shop here, and has to take out all the price in things. If any money is given, which she very seldom gets, 1*d.* in 1*s.* is taken off for discount. Pays 1*d.* for a skein of silk, whether taken out of her lace or whether she pays in money.

Can read, write, and do "money sums."

Mary Benning, age 6.—Here three months. Was at the British school before. Reads short words (spelling).

Sophia Benning, age 11.—Sister to Mary. Here four or five years. Comes at 8 in the morning and leaves at dark in winter and 5 in summer. Does not make lace at home afterwards. Mother teaches her to write then, and has done so ever since witness left the British school to come here. Witness writes a letter to her teacher at the Sunday school sometimes. At the British school paid 2*d.* a week, and learned to read, write, and sew; could write on paper a little there, but not "in a copy." Was in the figuring class, but could not count the figures.

Seldom misses reading here: as often as once a month, not as once a week. Reads (spelling some of the short words). "Rest" is "lie down and go to bed."

Elizabeth Cubitt, age 12.—Two years here. Reads (a stanza without spelling). Learned at the national school. Can write a little, but not sum.

MR. WILLIAM AYRES, LACE MANUFACTURER, NEWPORT PAGNELL.

Newport Pagnell.

Employs lace-makers in many of the villages round, some nearly 15 miles off. Lace is made in most of the neighbouring villages. Gives the patterns and sells the other materials to the workers. When prices are low the cost of the silk may be as much or even more than a third of the whole price. Also buys up the lace from the small shops to which it is taken by the makers, who, he believes, barter it, or are paid in the shop goods, though not entirely.

Lace schools are diminishing and other schools increasing. Has heard that at the lace schools the girls read occasionally. These rooms are often close. In the course of business frequently has letters written to him by lace-makers, girls as well as women.

Notwithstanding the extent to which pillow lace is now copied by machinery, which requires a constant change of patterns, there would be plenty of work were it not for other accidental causes of depression, especially the American war, and the present tariff there which amounts almost to a prohibition. But at present the earnings being so very small there are fewer persons who fill up their whole time with the lace employment.

MR. WILLIAM MARSHALL, LACE MANUFACTURER, NEWPORT PAGNELL.

Travels and buys lace brought to him at the inns in villages round, some 15 miles off, and as far as Towcester and Whittlebury, in Northamptonshire.

In some villages the lace is taken to grocers' shops and exchanged.

Supplies patterns and parchments, but the lace-makers may buy their own thread at the drapers, unless it be black silk, which must always be got from the lace buyer, a particular kind being wanted to suit the work.

In most of the villages round in ordinary times there are lace schools, with any number of girls up to 20 or 24, but now probably they do not average more than 12. The usual hours are from 8 o'clock till 8, summer and winter; a task is set, which may take longer or shorter, but must be finished.

Children go at 6 or 7 years of age, and leave at 12 or 14, and then work at home. They do not read at these schools.

Lace makers working by candlelight use a glass water flask to increase the light. In summer they often sit out of doors.

Nothing like the quantity of lace is made now that was, and there are far fewer lace schools. Many clergymen now have that amount of influence that they get so many more children to come to their own schools, some for half days.

Pillow Lace Making.

Bucks.

Newport Pagnell.

Mr. J. E. White.

MRS. HARRIS'S, LACE SCHOOLMISTRESS, NEWPORT PAGNELL.

This cottage is reached by a narrow untidy yard, and the room crowded and hot. The girls were working on without candle after it was so dark that I could hardly see to write. Working in such imperfect light must be injurious to the eyes.

Mrs. Harris.—Has 13 girls. Some come "in their 6;" some leave at 11 or 12 years old. Teaches but very little reading.

Elizabeth Wordsworth, age 15.—Has been at lace schools for 9 years. Her first school was in a village a few miles off. There were six girls, some older, some younger than herself. For the first year a girl's hours were from 9 o'clock to 4, and after that the full day, viz., in summer from 7 in the morning till 6 at night; and in winter from 8 in the morning to 9 at night.

Her hours are the same here, and were at three other lace schools in this town, with an hour for dinner at 12, and an hour for tea at 6. Never stays longer than 9¼ p.m. Sometimes they do not take their full meal times; perhaps three quarters of an hour for dinner and half an hour for tea.

When working by candle-light they sit in twos beside one another round the candle. The proper number to sit round a candle is eight. "Them as "sit first light can see:—them as sit second light "can't very well;" but 12 can sit round one candle, and do at times.

Makes 2 yards of this lace in a fortnight; that is worth 3*s.*; but (the buyer) takes 1*s.* of this for silk. The cost of cotton is only about 2*d.* in the shilling, but the lace fetches less, so her earnings come to about the same in the end, viz., not more than 1*s.* a week clear. She gets more than any girl here.

Sells the lace to whichever person she gets the pattern from. In the villages the price must be taken in shop goods; they never get more than a few halfpence at a time.

Never was at any school except a "playing school, "where I learned my letters," and Sunday school. Never reads here, nor do any of the girls. At her first school they read a verse of the Testament apiece, if they could, or, if they could not, they read in a story. Cannot read without spelling some words (reads an easy book fairly). A night school has just been started to which she goes five nights a week; one to sew, two to read, and two to write. Cannot write yet. Two of the other girls from here go with her.

Lucy Reed, aged 7.—Began lace at home 2½ years ago, and went afterwards to a lace school in a village about three miles from here. Went at 8 in the morning and left off at 3½ or 4½. Sits till dark here (between 5 and 6 at the time of my visit). Cannot read. (When asked if she knows anything in a child's book shown to her with pictures, A, B, C, &c. bursts into tears.)

Jane Harris, age 11.—Has been at lace 5 years. Was only a few weeks at any other school before. Learned reading at Sunday school, to which she has been morning and afternoon for 5 years. Has a verse of a hymn to learn every week. It is read to them. Spells "c-a-t." The first man made was Adam. Does not know of the Queen.

ELIZABETH EMERSON, NEWPORT PAGNELL.

My little girl Charlotte, aged 6, has been at Mrs. Harris's lace school three months and has made lace at home for two years. When she first began I set her two hours a day, and after a month two hours twice a day. She goes to the lace school now at 8 or 9 o'clock in the morning and gives over at 4 or 5 in the afternoon.

She makes 4*d.* a week and pays 2*d.* out of it for schooling.

I have another daughter 8 years old at the same school. She makes 8*d.* a week and pays 2½*d.* because she sits by candle light.

Besides the schooling there is the silk to pay for, which takes 4*d.* in the 1*s.*, and cotton 1*d.* in the 1*s.* The buyers make you take these when you sell your lace and take them out of your lace (money).

That is where they get their profit, and therefore they will not let you buy it elsewhere. You could not get the proper black silk at the shops, but you could get thread for cotton lace of the same kind as the lace buyer has, only not quite so stiff, but it answers the same purpose. You can buy 10 slips of this for seven farthings at a drapers, while the lace buyer gives only one slip of his for 2*d.* He finds fault with the lace if not made with his own thread, and says "You got that "at the shop."

A lady has lately opened a charitable night school without payment for 50 boys and 50 girls who attend Sunday school. I let my two girls leave their lace school early, *i.e.* at 8 o'clock, to go there. A mother can send and have her children away from a lace school when she pleases. I never could pay for schooling for either of them before they were at the pillow.

My girls suffer very much from the headache.

DINAH WOOD, NEWPORT PAGNELL.

My girl Mary, aged 11, has been at lace two years, but she is not strong, so I only set her seven hours a day at her lace school (Mrs. Harris's). She clears 7*d.* a week. Girls generally begin lace at six years old, or between five and six.

The children's hours in the lace schools in most of the villages round are "about the same, poor little "things!" as at Mrs. Harris's. Sitting in a lace school does not suit a great many; there are so many breaths. You never see any very strong that sit at lace long. It would not hurt them so much if they had a good meal when they come home, but they can get but very little to eat.

A good many fall into decline, and are obliged to be taken from the pillow, and the girls complain very much of the sick headache. Black lace can hardly be seen by candle light, and working at it hurts the eyes very much, and many become weak-sighted.

When girls are "making up" a quantity to "cut off" and take in on Saturday, they will sit up half the night to finish it, as it cannot be taken unless it is an even length, or on any other day. Mothers will sit up all through the night: little children do not, but girls of 16 or 17 do. This is very common.

After taking off for the silk, the manufacturer pays the rest of the money in full; but in villages, the lace is taken at the shops.

MR. JOHN BISS, LACE DEALER, BUCKINGHAM.

Buckingham.

Has been in the business 24 years; and also deals in useful goods.

The pillow lace manufacture in this district has been falling for about 30 years, but much more so in the last few. Machinery can now make goods equal in many respects to the pillow made, and there is so much

Pillow Lace Making.

Bucks.

Buckingham.

Mr. J. E. White.

capital embarked in it that such improvements will naturally keep increasing.

There are but few lace schools in this neighbourhood now, and girls are going off into other employments, especially straw plait. The system in schools is the same in all the places near, viz., a day of from about 8 o'clock till 5 and a small weekly payment; apprenticing is not usual. In making black silk lace, unless it be well worked, after paying for the material there is now nothing earned. In cotton lace the material is of little value.

His own plan is to supply the material and pattern to lace makers, fixing beforehand the amount that he will give for their labour; the lace then belonging to him as a manufacturer, and the pattern remaining his also. But the general plan is for the lace makers to buy the pattern and material and sell the lace as their own either at local shops or to travelling buyers. The effect of this plan is to discourage a dealer from going to any expense in patterns.

Lace is paid for to a considerable extent in goods as grocery and drapery; some buyers who do not deal in goods of this kind, yet selling tea. Whether the payment is made in money or goods will in some cases depend upon how much lace is in demand. If lace is wanted much, it can command money more.

Girls or young women making lace at home work in winter from daylight till 9 or 10 at night, and in summer from 6 in the morning till night, and are obliged to do this to make it worth their while to work at all. Working in this way, they could perhaps earn 3*s.* a week. An indifferent girl would hardly make over a farthing an hour. A girl would begin to work in this way as soon as she was working for herself, at whatever age that might be. Girls are often "their "own masters" by 10; but they would not work so long quite so young as that.

One of the worst parts of the lace-making perhaps is that there is no control over the young who are engaged in it.

Nash.

JANE BETTS, NASH.

Her mother had a lace school of about 20 girls in Buckingham, and there were three other lace schools; now there are none. The regular thing was for a girl to pay 4*s.* down for learning, and to have her own lace. Girls came at about 7 o'clock in the morning, but at first only stayed 8 or 10 hours, afterwards longer. They go now more to the national and other schools, as they say they cannot get anything at lace. A girl of 13 working 9 hours a day at lace has just cleared 1*s.* in the week.

Lives now at Nash, a little village near Stoney Stratford, where most of the women and girls are lace makers, and there is a lace school carried on in the same way as those in Buckingham were. Children go when about 7 or 8 years old.

Makes lace herself in her spare time (is married), and sells it to a travelling buyer, buying her own silk and parchment (pattern). This buyer (spoken of to me elsewhere as one of the principal dealers, and as paying in money) pays you in money, but he expects you to take a little tea, which he brings round in small packets. From all the other buyers at both places, viz. Buckingham and near Stoney Stratford, lace makers have to take out nearly all their money in grocery and drapery.

Winslow.

MRS. HAZARD, WINSLOW.

Has kept a lace school for 45 years, but gave it up last year because the children's expenses were more then they could earn, and there is no other school here now. Has had as many as 70 girls in her house.

The common age to begin was 6: some came as apprentices for a certain time, not paying but giving their work for their teaching; others paid 3*d.* a week, and formerly 4*d.* or 5*d.* Her hours were from 8. a.m to 5 p.m., with an hour for dinner, but for the first year she did not keep them so long by two hours, because the little things were so tired.

The lace dealers charge the workers for their silk, and pay the rest of their earnings in money.

ELIZABETH SHARP, WINSLOW.

Makes lace here, as most of the other women and girls did, but now they are giving up lace for straw plait. There were several lace schools here, and she was at one where there were 50 girls. Girls do not begin lace earlier than 7 years old now; they use to at 6. Three of her own children went at about 7. About here children go as apprentices at first, and pay after a year or so, leaving the school when about 14 or 15 to work at home. (Gives the same account of the usual hours as last witness.) Has heard the children complain of their sitting tight at work, and being hurt by it, but it never hurt her own children's health. The work is bad for the eyesight, especially now when much black lace is made, and in winter when they work tight by candle-light with the globes of water to make more light. Is paid in money for her lace. Some of the buyers bring goods, such as grocery and drapery, round with them, but people are not obliged to take those.

Northamptonshire.

Broughton.

MRS. MOBBS', LACE DEALER, BROUGHTON.

Has been in the business here and in Buckinghamshire and elsewhere for 30 years. Buys lace from the lace makers in all the villages round, but for the last two years there has been scarcely any sale for it, and she has it in stock in very large quantities.

Cannot now pay all in money as she used, but pays partly in goods. The lace makers cut off a piece of lace and bring it in whenever they are in want of anything for use.

The number of lace makers in these parts has greatly diminished, and people cannot afford to put their children to lace schools, where they usually pay 2*d.* and 3*d.* a week for learning. There is no apprenticing in these parts. When trade is good children begin lace at 6 or 7 years old, most at school, but some at home. A day's work of so many hours is set for them. Never counted what a girl could make in a week, but should say that a quick girl of 12 or 13 might have made 4*s.* or 4*s.* 6*d.* when trade was good, and that now an average girl of the same age would not make more than 1*s.* or 1*s.* 6*d.*

Lace net is brought from Nottingham to this neighbourhood to be worked with the needle on frames by women and girls, perhaps three or four at one frame, which is called framework, but for the last two years there has been scarcely any of this work done.

MARY ANN SUMTER, BROUGHTON.

For three or four years I had a lace school of usually about 12 girls, but gave it up last year because there was so little sale for children's work, that it was not worth their while to pay for learning. There is no other school here, and I do not know of any in the neighbouring villages. My scholars paid me 2*d.* a week in summer and 2½*d.* in winter.

The usual age for beginning is 7, but I had one girl of 6 and one of 5, but I would never take one under 7 again, as they are so much trouble to teach. For a month girls were learners, and only came from 9 o'clock to 12, and I let them run out for half an hour in the middle, so as not to confine them too much all at once, and they came again from 2 to 4. They came from about 8 a.m. in winter and 7 a.m. in summer, to 6 p.m., with an hour for dinner. They did not work

Pillow Lace Making.

Northampton shire.

Broughton.

Mr. J. E. Whi

by candle-light for two or three years, not younger than 10, and then sat till 8, having an hour also for tea at 4. These hours are as long as children of the ages named ought to be confined for.

I believe that lace making is very injurious to the health. Many times it brings on consumption. At first girls complain of a pain in their side, after that, in their stomach, and when it gets there, they soon suffer in their head too. I have many a time had to let my own scholars, mostly amongst girls of about 11 or 12, but also amongst girls of all ages up to 16 or 17, give over for a pain in their side, and I did so, knowing what I had suffered when at a lace school as a child myself. My own child, Hester, age 13, used to complain of this pain in her side, but has not since I have not confined her to the pillow. Some, chiefly the weak girls, lean very forward at their work, which presses their chest against the "maid," or "horse" as a few call it (pillow stand), and this must hurt them.

Besides that the confinement and crowding of so many into one room is bad. I have often thought so when I have had as many as 20 girls in this room sitting nearly as close as can be, though where I was at school myself there were 30 in a room of the same size. Sometimes they have asked to have the window open, but I would not allow it for fear of the draught through to the door, remembering how we suffered from this at my old school, from toothache, &c. But I have always found my scholars more healthy in winter than summer.

The drain so close to the door, which I cannot alter, (a sink with refuse lying around two or three yards from the door) smells very bad then, and must be bad for all.

My own health suffered very much from being at a lace school, to which I went at a distance from here at 6 years old, and I feel it still. I used to have the sick head aches, which I had never had before, and could not work then, but my mistress said it was all idleness, and used to flog me so severely and knock me about so all the same, whether I could work or not, that I got more behind still. Other girls had the common head aches. When we got behind we had more work set for us to do by a certain time, and if it was not done by then it was doubled. In this way I have been kept till 10 or 11 at night in summer, and one night in winter I had a bad accident from hurrying home alone in the dark, about 9, and was picked up streaming with blood. Sometimes, even when I was kept as late as this, I have had to go without finishing what was set me, because I really could not do it, and then could not work next day.

This was partly from being kept without food so long, that sometimes I felt as if I should die. It was a common punishment, if girls had not finished what they had to do, to keep them all day from morning to night without food, making them sit (at work) all dinner time instead of going home, and if their mothers brought them food afterwards, not allowing the children to have it. A mistress made nothing of that, and I have known mothers as severe as a mistress in keeping their children without food when they will not work.

I feel even now a kick in my back which my mistress, who was very cruel, gave me once as I was sitting at my work and leaning forward, which I think made the blow worse. I have often thought that my mistress could not know what I suffered, or she could not have treated me as she did.

Boys worked with the girls, but it did not seem to hurt their constitution so much as that of the girls. The mistress could not master them in the same way, and they would run off. The boys too seemed quicker and could earn a little more. My husband learned and I taught my own boys, but no boys learn now, as there is so little work that not half a score of young girls even in the place make lace, though if trade were better there would be a school again. Even of bigger girls there are only a few, who are out of place, who work at the pillow, and not one, I should say, who makes it a regular employment.

The work is bad for the eyes, and I am weak-sighted myself from it, though I left lace-work at 11 years old and did not take to it again till married. I found white lace worst by daylight and black by candle light.

I am a clever worker, and have taught many women new patterns, but making the best lace and working 10 or 11 hours a day I could not make more than about 4*d.* a day now. My daughter (Hester) who is almost as quick as myself, but cannot do the best work, could not make more than 2*d.* a day in 10 hours. When at school myself I gained about 4*d.* a day, after paying for my schooling. Scarcely any lace made here will sell now except Maltese, chiefly cuffs and collars. When there was work some girls took their pillows home, but I think they never work very late, as till midnight.

PYTCHLEY.

Pytchley.

In this village I received from lace makers, of whom I made inquiries, just the same account as in Broughton of the usual system of lace making, and the present want of employment and absence of schools. The three following persons will serve as specimens.

MARY BAYLEY.

Went to a lace school at 5 years old, and her little girl (next witness) at 6, but witness did not keep her there as her health was not good. The confinement of lace work is bad for any but strong constitutions, and she never heard of any child that liked it. The work is also very bad for the eyes. Now there is so little lace work more children go to the free school, for which they pay 1*d.* a week in winter. If trade were better they would go to lace schools again. (A neighbour says she was at a lace school of 40 girls in one room.) At school (not lace) the children are taught to write, but often cannot read it when written.

A buyer comes round and takes some of the lace and pays money, but if it is taken to the dealer near they only get drapery.

EMMA BAYLEY, AGE 10.

Used to go to the lace school at 7 in the morning, and leave at 5, with an hour for dinner. Had 8 hours work set. It did not tire her eyes.

Goes to the free school now but not regularly, and makes lace at home too, but never in her life did by candle light. Can read, write, and read her writing, and sum, but does not remember what sums; 7 times 7 is 14; twice 7 is 14. (Reads a stanza well.) Goes to school on Sunday and says the collect.

MARY MIDDLETON, AGE 11.

Began lace making at home at 6 years old. Has usually begun in the morning at 7, and left off about 5 or 6 in the evening; never worked by candle light. Can see her work well. Some children make black lace, and that makes their eyes tired. Knows it does with one girl who works alone at her aunt's from 7 to 5, and sometimes longer in morning and evening both. There was a great lace school here 2 or 3 years ago. Girls went from 7 o'clock till 5, with an hour for dinner.

Goes to the free school, but has never been for more than a few months at a time, and leaves in summer for out-door work and gleaning. Can read and write. (Reads imperfectly.)

Pillow Lace Making.

MR. THOMAS LESTER, LACE MANUFACTURER, BEDFORD.

Bedfordshire.

Bedford.

Mr. J. E. White.

I have been in the business nearly 50 years. We (partners) employ lace makers in almost every village, and in some of these in almost every house, within a circle of 10 miles from Bedford, or more in some directions, and rather less towards the south-east, where the straw plait district begins.

In some of the villages we have also lace schools under our control, so far as regards the kind of lace made there, and the patterns used, which we supply together with the parchments, but in no other respect, the mistresses taking the scholars on their own account for a small weekly sum. It is not the custom in this district to apprentice the children to learn lace, nor is any reading taught in the lace schools. In most lace-making villages there is one school; in the larger, more; in some, probably five or six. A common number of scholars is from 20 to 25; in a few schools there may be nearly double that number; in others half, or less; but it is not worth a woman's while generally to keep a very small number. The number must depend on the size of the rooms, which, as it is, are often very small and crowded.

The average age of beginners may be taken at about 7; but at first they only work for a few hours, perhaps 5, in the day, and afterwards not 10 on the average. A given quantity is set to be finished in the day, and when that is done they can go.

Some mothers who are intelligent and industrious, teach their children at home, unless they have large families, when they are glad to have their children cared for elsewhere.

As a general rule we prefer those who have been taught at home to those who have been amongst a large number at school, and we find them better workers. There are, I should say, more children working at home than in schools.

They soon begin to work for themselvss, and by about 15, or perhaps earlier, they begin to "board themselves" at home, in which they take a pride. When there is much demand for lace and wages are high some of the girls will work very long, some as much sometimes as 16 hours, for the sake of getting dress chiefly; and others, who are forced to get a certain amount of money to support themselves, may have to work twice as long to do this in a bad time as in a good.

There is a very great difference in the intelligence and skill of different lace makers, which depends mainly upon the amount and kind of instruction and explanation of their work which they have received. A child of 12 may do as well as a woman.

One great want in the trade is a school of design, which would enable manufacturers to obtain patterns suitable for ordinary work. There are many French and Belgian designers, but their patterns are too elaborate and difficult for the people here, and scarcely any of the manufacturers (pillow lace) can design their own, though we do. And connected with this is a great evil in the lace trade, viz., copying of patterns, which tends to discourage invention.

The pillow lace district, excluding Devonshire, is the greater part of the counties of Bedfordshire, Buckinghamshire, and Northamptonshire. The Buckinghamshire lace is principally black, and probably the greatest in value of the three; the Bedfordshire, white fancy lace, in imitation of the Honiton; and the Northamptonshire, white thread, a coarser sort. In cotton and linen lace, as in the Bedfordshire, nearly the whole of the value is the labour, very little in the material.

There are as many young girls employed upon lace in this district as there ever were, though the pay is much lower, and consequently more of the bigger girls leave lace to go into service; but if prices improved again they would not do so. As the price rises more hands always apply for work.

Improvements in machine-made lace do not affect the demand for this kind of lace, which depends upon fashion and other accidental circumstances, as the American war. Nearly a third of the whole of the lace made in Bedfordshire used to go to America, and now most of this trade is stopped. Other lace, as the Northamptonshire, may be more affected by the machine lace.

We purchase the lace weekly all through the year, and pay in money, which we find the most advantageous and to command the best workers; and our workpeople also buy their own materials of us or wherever they please. But this is done only by the chief manufacturers, others paying more or less in goods. Much lace is taken in from the makers at the shops of grocers, &c.

There has been great improvement of late years in the intellectual condition and manners of the people in these districts. I attribute this chiefly to the increased amount of Sunday school teaching and evening classes, chiefly connected with the Sunday schools, and the greater association of the lower with the higher classes, who now take an increased interest in their welfare. The influence of this teaching extends to the general conduct of the people in the week, and is shown by their more orderly and refined behaviour; for instance, when the girls bring in their work to be sold.

No one can doubt that the improvement is owing to these causes. The mere fact of coming into the town civilizes them, and we find those who bring their work in here altogether brighter than those whom, when work is wanted, we have to seek out at their homes. But the influence of schools depends very much on the activity of the persons who support them. Where these are active the children stay longer away from lace work.

ilshampstead.

MRS. SMITH'S, LACE SCHOOLMISTRESS, WILSHAMPSTEAD.

The usual number here, including the mistress, is 23, and has been as many as 25, in a room of $10\frac{1}{2} \times 10 \times 6\frac{1}{2}$ feet, the only part of the window which will open being 13×20 inches. The cubic space for each of 25 persons would be $28\frac{1}{2}$ feet. With only 20 persons present the room is very close, and the crevices round the window are stopped up with cloth.

Mrs. Smith.—Many girls come at 6 years old, but do not stay more than 5 or 6 hours in a day, and do not work all the time. After a little time they come from 8 o'clock till 5, with an hour for dinner. When about 11, they come from about $8\frac{1}{2}$ a.m. to $8\frac{1}{2}$ p.m. with their dinner hour.

Has had 24 girls in this room, but could not do that in winter, because the door could not be opened.

One girl of 13 here can earn 2*s.* 3*d.* in a week now that the price is very low; in a good time she could earn nearly double. A girl of 6 would not earn anything for the first six months.

About 8 is the best age for beginning, though by $7\frac{1}{2}$ they are not so dull as if they begin younger.

Jane Alcock, age 9.—Here a year. Leaves at $4\frac{1}{2}$ in the afternoon. Was at school for half a year only, and never has been on Sunday. Learned reading, writing, and sewing, but no figures. Spells "do."

Elizabeth Bar, age 8.—Lately come here, but was at her aunt's lace school before. Was never at any other kind of school, except the Sunday to which she goes still. Cannot read.

Sarah Cooke, age 10.—Was never at school except on Sunday. Spells "the."

45

MRS. COX'S, LACE SCHOOLMISTRESS, WILSHAMPSTEAD.

Pillow Lace Making. Bedfordshire. Wilshampstead. Mr. J.E.Wh

The room here has a fireplace and three windows, but none of these can be opened. The measurement is 14 × 12 × 6½ feet, which allows for the usual number of persons in it, 20 girls and the mistress, 1,092 ÷ 21, or 52 cubic feet per head.

Mrs. Cox.—Has 15 scholars now, usually 20, between the ages of 7 and 12 or 13 or 14. Seven is the usual age for beginning. The usual hours are in summer from 7 a.m. till 5 p.m., and in winter from 8 a.m. till 8 p.m., but only the elder girls stay till 8, and go home to tea. Sometimes they stay till 9, but never later. All go home to dinner for an hour. The children pay 2*d.* a week, or if beginners, 3*d.*, and in winter 1*d.* more.

She sells the lace to the manufacturer and pays the children for whatever they have done. They buy their own materials where they please. A girl of 9 or 10 would get 1*s.* a week. When they have left school they work at home later to get themselves dress. Has worked herself so all through the night. All her 15 girls now here are under 13. Some of the bigger girls take their pillows and "horses" (pillow stands) home with them at night to work.

Mary Pearce, age 10.—Here two years. Hours are from 8 a.m. till 5 p.m., not longer. Learned sewing and reading at school before, but did not learn writing, summing, or figures. (Spells one syllable words.) Does not know what "gay" or "king" means, and has not heard the queen's name. Does not work at home. Has taken 1*s.* 8*d.* home to mother in a week for three collars.

Sarah Cooper, age 7.—Came here when 6. Till then learned sewing and reading at school. Goes to Sunday school now and sings at chapel, but does not know what she hears. "E" is "B," "N" is "W." Knows H. Has taken 10*d.* home in a week.

MRS. CHURCH'S, LACE SCHOOLMISTRESS, COTTON END.

Cotton End

The usual number of lace scholars here is stated to be 12, which, with the mistress and three girls, whom I found making straw plait, makes 16 persons in a room, to judge by eye, of about 12 feet square.

Mrs. Church.—Usually takes girls from the age of 8, and keeps them till about 12 or 13, when they go to work at home. The younger leave by 4 or 5 o'clock, coming at 8, but six of the elder girls have stayed this winter till 8 usually, but not later. The girls pay her 2*d.* a week, and have what lace they make. All the girls but one go one evening in the week to a school to learn writing, &c., which they are taught free by a lady, but they cannot sum. The girl who does not go is kept from it by her friends. There is no other lace school in the place.

Mary Collins, age 8.—Here half a year. Was at school till then for two years, and learned writing, reading, and sewing, and goes one evening in the week now to learn writing. Reads (one syllable words without spelling). Did "1, 2, 3" at school, but no other sums. Coal comes from Australia. Comes here at 8 in the morning, and leaves at 4 or 5 in the afternoon.

MRS. GOODMAN'S, LACE SCHOOLMISTRESS, ELSTOW.

Elstow.

The room is rather larger in proportion to the numbers than those just described, but too small. A new room no larger is being built.

Mrs. Goodman.—Has 14 scholars and a sitter. Has had 17. They come at about six or seven years old, and do not stay after about 15 or 16, unless as "sitters." The hours are from 8 in the morning till 9 in the evening, but they do not sit by candle-light till about 10 years old, and all leave in the middle of the day on Saturdays. (They are away now, Saturday, 1 p.m.) The sitters sit as long as she does, *i.e.* till 10 p.m., and sometimes till 10½, but not later, and they do not take their pillows home ever. A girl does not begin to make anything (*i.e.* profit) till she is about eight. Takes their lace into Bedford and brings back their money. A girl of eight or nine may make 6*d.* a week, or rather more.

Thinks most of the girls can read, because she often asks them about such things. There is a good day school in the place, where they learn sewing, reading, and sums for 2*d.* a week. Some of her girls go to this school for half days three times a week. Nearly all the young women and girls in the place are lace makers. They work at their own homes only, and not in sets at one another's houses.

Julia Hall, age 18.—Is a sitter here, and has been here 9 years. Before that she was at school, where she learned reading, writing, summing, and sewing, and has been to Sunday school also, and other girls from here went too. There is an evening school in the place, but only one girl from here goes to it. She pays ½*d.* for going once a week to learn to write.

MRS. BURNIDGE'S, LACE SCHOOLMISTRESS, HOUGHTON CONQUEST.

Houghton Conquest.

There is a fireplace in this room, but it is said to be never used, as the girls quite fill the room and have to sit up close to it, and a counterpane is drawn over it to keep out the draught. The usual number of girls is 24, besides the mistress and two "sitters." The cubic space of the room (11 ft. 6 in. × 11 ft. 9 in. × 7 ft. 2 in.), is 968 and a fraction, or rather under 36 feet for each person.

Mrs. Burnidge.—Girls usually come when about 7, and leave at 13 or 14. It is of no use for them to begin under 7. Her usual number is 24. They come at 8 o'clock in the morning and leave at 5½ in the afternoon, with an hour for dinner, and all leave at dinner time on Saturdays, as all lace schools about here do.

Thinks that most of her girls can read and go to Sunday school. There is an evening school in the place, but very few girls go to it; boys do. These girls can earn from 1*s.* up to 2*s.* 6*d.* a week, but earn scarcely anything before they are 8.

Sarah Kingham, age 12.—Here 3 or 4 years. Was at a sewing school before, and learned also writing and reading, but no sums. Paid 2*d.* a week there, the same as here. Mistress sells their work. Never works at home. Can read, but not write. Reads "remember, &c." (easily). Does not know what it means, or whether it is different from "forget." Has not heard of France, but has of Australia: people go there in a ship. Does not know what "sea" is. Goes to Sunday school.

Dora Woodroof, age 11.—Can read, but not write or sum. Learned reading at school, and goes on Sunday.

Jane Sorrell, age 9.—Can read (short words), cannot tell what "guard" means, and has not heard of a mountain.

REPORT BY MR. J. E. WHITE UPON THE HOSIERY MANUFACTURE.

To Her Majesty's Commissioners.

Gentlemen,

I have the honour to lay before you the evidence which I have collected relating to the manufacture of hosiery, including that of elastic fabrics.

The manufacture now comprises in addition to the plainer goods, such as stockings, socks, undershirts, drawers, gloves, &c., a large variety of miscellaneous fancy articles, such as jackets, comforters, &c., making, as stated by a competent authority, as many as 5000 different kinds of articles in the fancy branch alone; and as the articles themselves are not all made by one kind of mechanical appliance, it is somewhat difficult to fix the exact range of the term hosiery itself, though the bulk of the labour is that employed in connexion with machines or frames, and the work made upon them.

That it is a trade of considerable importance is shown by the fact that in the year 1860 the returns were 6,480,000*l.*, and the estimated number of persons employed in it 120,000.

The manufacture, which at the time of the former inquiry into the Employment of Children twenty years ago, was stated to be almost entirely domestic, or carried on in the house of the mechanic, with the exception of some cases in which small numbers of from 6 to 20 knitting frames were brought together in shops, has since that time undergone a considerable change owing to the application of steam power, and the consequent use of wider and more powerful frames or machines in steam factories, and the proportionately increased rapidity and cheapness of production, which while largely developing the trade as a whole, and increasing its returns as well as the earnings of those employed in such a way as to enjoy the assistance of the power, have seriously affected those branches of the work in which steam enters into competition with the hand, having entirely displaced some of the old work and continuing yearly to do so to a greater extent.

To this extent the manufacture has fallen and will fall under the operation of the existing factory laws, though it is stated that certain ranges of rooms or shops in which frames are moved by steam power are not treated as falling under those laws.*

It is however stated by nearly all the manufacturers, whose opinion I have taken upon the point, that owing to certain mechanical difficulties, and other reasons detailed in the evidence, steam power cannot, or will not for a considerable time at least, if ever, be applied to the manufacture of the best kind of plain hosiery.

This becomes of importance in case of its being thought that the effects, specially arising from the present domestic system of manufacture, upon the young engaged in it, are such as to render any legislation in regard to them desirable.

In addition to the change above referred to another change has taken place from the tendency, especially in large towns, to use wider frames, though not worked by power, which produce a larger amount of material at one time, but require greater bodily strength to work them, and to concentrate these in considerable numbers, as for example 20, 30, 40, or even nearly double that number, worked chiefly by men or big youths, in one shop or collection of shops, thus forming a small factory. These places are under the control of a master, and the work far more regular than in the private houses or small shops, beginning earlier in the week and rarely exceeding 10 p.m. Also as a natural consequence there is less scope for the labour of females and children than in the old narrow frames, though young children still work in some of them.

The system of the work, of which the amount is very considerable, still remaining in private houses and small shops including the winding of bobbins for the frames, chiefly done by children (girls however rarely, if ever, going from home as winders either to small or large shops) is much the same as at the time of the former inquiry already referred to, with the exception that in consequence of the changes which have been noticed, and the present accidental scarcity of a principal material (cotton), the labour is more depressed, and the condition of the mechanics and their families even more miserable than at that time. The glove branch, owing to the increased use of other substances in place of knitted, as cloth and kid, has suffered perhaps more than any. Stockings, &c. are now ornamented to a great extent by colour and stripes. In the two last classes of article I did not find traces of so much employment of the young in embroidery, &c. as appears to have been formerly the case.

I am informed by a person specially conversant with the poorest classes in Leicester that the winder boys generally, *i.e.*, those who go out to wind, are amongst the poorest and most neglected both in body and mind. Their appearance and manner certainly bear out this statement.

After the fabric has been produced upon the machine or frame, whether worked by power or not, a large amount of labour, chiefly needlework, is required for mending, and also in most cases for forming each article by joining together the edges or the separate parts in which many of the articles are made, generally spoken of as "seaming," or in the case of gloves as "stitching," "turning welts" or hemming, sewing on bands and buttons to shirts and drawers, &c. Much of the material made in factories and "cut up" into smaller pieces is stated to be sewn there by stitching machines worked by power or by treadle, and stitching machines of the latter kind are also worked by young females in warehouses; but a great amount of goods is also sent out from the factories into the country to be seamed.

This seaming, &c. (excluding that in factories and warehouses) is done almost entirely by mothers and their children or by females at their own homes only. Upon careful inquiry on this point in every place which I visited I found but slight exceptions, viz., those of very young girls going out to "nurse and seam," or to a small seaming school, or in very small numbers as workers, the latter system

* On communication with the factory inspector for the district in which these shops are I have ascertained that this arose merely from the proper notice of the adoption of steam power not having been sent to him.—J. E. W.

seeming to be almost extinct in the few places where it ever existed. Men naturally get the work done by their own families and do not make material quickly enough to employ other persons. The Hosiery Manufacture.

Mr. J. E. White.

But owing partly to the lateness of orders and of the supply of materials by the warehouses or intermediate employers, "bag hosiers" or middlemen, partly to the general habit of the men of "shacking," or idling in the early part of the week even, or still more, when they have work, coupled with the necessity of finishing the work by "taking-in day," usually Saturday, when it is taken to the warehouse, and the simple nature of the work, which requires but little delicacy or skill, an excessive pressure of work is thrown periodically upon very young children; and some are employed almost as infants. I have been informed by a manufacturer that his father was employed as a seamer at two years of age, and in a frame at so early an age as to distort his fingers by the constant grasp of the iron. Other instances are given of children beginning work at $3\frac{1}{2}$, 4, and many at 5 years of age. Irregularity of work.

The labour, however, of the girls who seam, which is the finishing process, is far more excessive than that of the boys who wind, which is the preliminary, though boys seam also, and sometimes after completing their winding.

It is common for girls as well as women to sit up at work all Friday night, and even for children to be kept up some time past midnight. A young woman dares say that she was 6 before she began to work till 12 at night, and worked in a frame all through the night before she was 12 years old; and evidence is given by parents of their own child, a girl of 8, having worked the whole night through as much as 2 or 3 years ago, with a statement that work of this kind is general; others have done so at 8 or 9, and at 11 or 12, or younger. Late hours of children at early ages.

The statements of children where given together with those of parents were in all cases made in the presence of and confirmed by the latter, many of whom seemed to look upon the fact of their children working thus as nothing remarkable or out of reason; others regretting it, but as an evil for which there was but small blame anywhere, and no possible help.

As a rule the small shops as well as the houses are unfit as places of work for the young. Such a shop is generally just long and broad enough to hold the number of frames placed in it in a single or double row, with bare passing room, often not more than 6 or 7 feet high, and without means of ventilation, and dirty from accumulated rubbish and dust, as well as close. But often from 1 to 4 frames are in the only living room, poverty not allowing the cost of double fire and light, where, as in some cases, there is a second room. Many of these rooms are squalid far beyond what is usual in the country dwellings of the poor, and of necessity in these, crowded as they are with frames, furniture, and inmates, and noisy with the rattle of the frames, meals such as can be had are cooked and eaten, infants nursed or put to sleep, and other home work done, of which, however, cleaning seems to form but a rare part. State of work-places.

Seaming is done by the family in the same room, and also in houses without frames, and therefore less crowded and noisy, but sometimes even poorer.

The scanty light by which poverty often obliges the seamers to work must add much to the strain upon the eyes in the often long-continued night work. Weak sight is common amongst seamers, and young girls are said to wear spectacles, one of 11 having worn them for 2 or 3 years. I did not see any, but I found but few girls actually at work, and they do not wear glasses at other times. Effect on eye-sight.

The appearance of the inmates corresponds to that of their abode. The parents, particularly the mothers, look oppressed and haggard with want, and worn with hard work and care, and the children, heavy, stunted, and without animation. Condition of work-people.

The parents commonly complain that the means of education, where provided, are out of their reach; where provided they are not always efficient, and a boy complains of being taught by lads no bigger than himself who only "ax you once and then hit you." The ignorance even amongst adults is extreme. Want of education.

This description of the condition of those employed in the domestic branch of the manufacture is necessarily general and admits of several degrees of exception; but the general impression left on the mind by a visit to the stockeners' homes is one of severe labour and much suffering in persons of all ages, and of much oppression of body and neglect of mind in the young.

The manufacture embraces a further amount of employment already partially referred to, that namely, which is carried on in warehouses in the towns, which consists chiefly, in addition to the mending and sewing already mentioned, of looking over, stamping (with marks), sorting, and folding the goods after they are brought in by the work-people, or from the bleachers, and a few miscellaneous employments such as "trimming" or dressing, *i.e.*, finishing or glazing gloves, turning hose, making or working at some fancy articles, &c., but a great part of this labour is of a kind for which the quite young are unsuitable, and the number of persons of either sex under the age of 14 or even under that of 18 is comparatively small, and the number of children under 13 extremely so. Warehouse employment.

The stated hours are moderate, and in the majority of cases seldom exceeded, unless at stock-taking time, or for an exceptional order, and then not beyond a couple hours. Hours in these moderate,

Some of the warehouses are large new buildings of the same character as the new lace warehouses, and in nearly, though not quite, all cases, owing to the comparatively small amount of manufacturing labour carried on in them, there is sufficient space for the persons employed in them, and also moderate temperature. and work-rooms healthy.

The manufacturer, whether he has a steam factory or not, generally employs a greater or lesser number of hand frames, in many cases his own property, and let out by him directly or indirectly through an intermediate holder, to the work-people. These frames, if numerous, constitute a valuable property, which is said to stand in the way of improvements in steam machinery. Relations of employers to employed.

The orders for goods and the materials for making them are given out from the warehouse either direct to the work-people, or to a great extent through the agency of intermediate employers, or middlemen called "bag hosiers," who in that case distribute all the work, and collect it when finished, and bring it back to the warehouse on "taking-in day."

It is stated that in some cases the person who works the frame has to pay a per-centage on his work in order to obtain it, and also that some agents pay by "truck" or rather by tickets on shops instead of in money. Trucking and commission.

The chief seat of the hosiery manufacture remains as formerly in the three midland counties of Seats of the manufacture.

The Hosiery Manufacture.

Mr. J. E. White.

Nottingham, Derby, and Leicester, in a district, which roughly speaking may be described as reaching from about 15 miles north of Nottingham to about the same distance to the south or south-west of Leicester, and of considerably less breadth, including the two large towns of Nottingham and Leicester, the former the principal seat of cotton hosiery, the latter of woollen, the intermediate town of Loughborough and other smaller towns, as Belper and Hinckley, and as stated by Mr. Felkin 250 parishes. The steam factories are in the towns, chiefly in those named. A great part of the small shops and home worked frames are in the villages.

The only other places in which from inquiries from manufacturers I could learn that the manufacture is carried on are a few scattered places in England, Scotland, and Ireland, principally the latter, and that only to such an extent as not to make me think it desirable to occupy time by visiting them; and in addition to these there is the very limited and partial employment carried on by females in different parts of the kingdom of knitting with the hand and knitting pin alone, which seems scarcely to fall under the head of a distinct occupation.

Elastic web manufacture.

Within about the last 15 or 20 years a new branch of manufacture, already grown to considerable importance, and said to be fast increasing, which in certain portions at least appears to come under the head of hosiery, or at least to be very closely connected with it, viz., the elastic fabric manufacture, has sprung up. In Leicester alone, which is its chief seat, there are about 12 manufacturers of this article, and several in other towns.

The principle of the manufacture consists in combining india-rubber with a textile fabric, and the articles produced are the elastic cords, webs, &c. such as are used for braces, stockings (elastic), bands, boot springs, &c. The weaving of these materials by power falls within the factory acts, but young persons are employed in warehouses in performing certain auxiliary operations, as picking off ends, winding, and other work at the warehouse counters. One of the largest of these warehouses which I visited is so connected with the factory and the use of steam power, as to fall under the factory regulations, and on a pressure of work, to avoid the inconvenience, part of the work has been removed each day on the expiration of the factory hours to another building.

This employment appears to be confined to factories already under the existing factory regulations and large warehouses.

I have the honour to be, Gentlemen,
Your obedient servant,
J. Edward White.

EVIDENCE COLLECTED BY MR. J. E. WHITE UPON THE HOSIERY MANUFACTURE.*

Nottingham.

MESSRS. J. AND H. HADDEN & Co.'s HOSIERY WAREHOUSE, NOTTINGHAM.

This is a large new warehouse with a "well" or large round open space in the middle, round which the floors run like wide galleries. This construction is very favourable for the supply of fresh air, and secures ample space for the persons employed, who appear of a higher class. The building is very light, cheerful, and clean.

Mr. J. Hadden.—We are manufacturers of hosiery, part of which is made by steam power in our factory, and part on hand frames in other places. We have also a warehouse in which the goods are stamped, (*i.e.* marked), mended, folded, and packed; and shirts also are made up, a branch of work which was formerly given out to be done by women at their own homes.

Children are not suitable for our warehouse employment, and we scarcely ever take any except one or two for errands, who learn the work at their odd times, and I believe that this is the only way in which children are employed in other hosiery warehouses in Nottingham. It would be much better for the children, and not at all detrimental to the trade, if up to the age of about 14 they were not employed at all, but continued at school. But at that age or a year or two later they become very useful, as much so as adults with whom they work.

If we found serious inconvenience in consequence of any restrictions on the labour of those under the age of 18 we could easily avoid it by employing only those above that age, of whom we have always been able to obtain any number desired. The loss, if any, would fall on the younger girls, not on the manufacturer. The occasions, however, for longer hours are quite exceptional. If they became more frequent we should meet them by taking on more hands. Any restrictions, however, are irksome and should be imposed only when necessary. In many warehouses, in Nottingham at least, I think they are not necessary. The hours are short and regular, and vary little with seasons, the amount of business being much the same in one month as in another. I believe that in any of the hosiery warehouses work later than 8 p.m. is uncommon; it certainly is so with us. In a year of fair trade work till 9 would not happen with us for more than a fortnight in a year, and it has not been past 10 within our recollection, at any rate for some years.

I believe that all the better class of manufacturers here would be in favour of any measure for the protection of the really young, but would think it unnecessary to extend it to any young persons over the age of 16.

If labour here became scarce, and the result of any such restrictions were to hamper the English manufacturer, or to increase the cost of production here, it would put him at a still greater disadvantage than he is under at present as compared with foreign manufacturers. The competition from Saxony, owing to the extraordinary cheapness of labour there, is already so great as to make the profits of the business here extremely small, and to prevent any great increase of the English manufacture. This is still more the case since the removal of duty on foreign hosiery two or three years back. It happens sometimes too, that the power of working extra time enables the English manufacturer to meet an order promptly, which might otherwise go elsewhere, perhaps to the Saxon market.

The Nottingham hosiery is chiefly of the finest quality, and the hands employed upon it in warehouses are of a high class. Those who come into the principal departments of ours are taken from schools on recommendation and are well taught.

Though I consider that the hosiery warehouses do not in themselves need any regulation, and that any interference with them would be objectionable, still,

* A statement by Mr. Felkin, giving statistics of the Lace and Hosiery manufactures, and remarks upon those employments, is printed with the evidence collected on the former subject, and is here referred to as embodied in the following.—J. E. W.

if other establishments of a like kind in the same place such as lace warehouses were regulated, it would not do to make distinctions between them.

I do not think it likely that hosiery will ever cease entirely to be a domestic manufacture, as steam power will not produce goods of neat enough finish to satisfy those classes who will use only the best article. The amount of goods made in factories is constantly increasing, but it is of the less finished kind only. The material is produced in great lengths without any stoppage, and then cut up into small pieces which are afterwards made up, and are shaped by being stretched upon boards. In this way one girl can produce as many as 60 or even 120 dozen pairs of stockings in a week at prices from 1*s.* 6*d.* to 5*s.* a dozen. But if the stockings are shaped or fashioned in the making this must be done by the hand on a frame at a far slower rate, one man, supposing him to make the whole stocking himself, being able to produce, at most, but a very few dozens in a week, the prices of which would be from 8*s.* a dozen, upwards, according to the fineness and quality.

The Saturday half-holiday is general amongst the larger hosiery warehouses.

[The greater part of this statement was taken from both the Messrs. Hadden.]

Elizabeth Marriott, age 17.—Here 2 years. The hours are from 8 till 6 in summer, and 9 till 6 in winter, with an hour for dinner. Seldom has any overtime. Can read, but not well, unless it is easy (reads well). Can write well, but not sum. Left week school at 10 years old to help mother at home.

Mrs. Colson.—Is overlooker of the shirt hands, (who are not of so high a class as the others). Does not generally take girls under 16 or 17 as she does not like them younger. Thinks they can all read and write. They have to keep an account of their own work each in a separate book, and she checks it. (Shows some of their account books plainly written). They get from 6*s.* to 12*s.* a week, on the average about 9*s.*

MESSRS. THOS. ASHWELL AND CO.'S HOSIERY WAREHOUSE, HOUNDSGATE, NOTTINGHAM.

Mr. Thomas Ashwell.—We employ in our warehouse but very few young persons, and 2 children, daughters of women in the warehouse, but if we had to let these go to school we should give them up.

The hours in hosiery warehouses are much shorter now then formerly, when they were open at times as late as 10. They are not now. This change has come from a feeling against people working so long; and now they could not, without great difficulty at least, be got to stay so late.

Hours as long as the factory hours would be long enough for a warehouse, unless for very exceptional cases, and there is but little irregularity in the business throughout the year. If the hours were not enough we should get a few more hands, and if we had many young persons, and could not keep them beyond 6 or 7 p.m. we could easily make arrangements for beginning earlier in the morning, as is done in one or two hosiery warehouses that I know, where they do begin at 6½ a.m. when unusually busy. There is nothing at all in the nature of the business to prevent it.

It is not necessary to have the young at work for long hours at all, and even if preventing it were any inconvenience to employers, it should be submitted to rather than that the young should be injured. It is desirable that they should have some education and not be allowed to work too long. In Saxony children up to a certain age are not allowed to work, and all have an excellent education. That system may not be suitable to English feelings, but it is quite possible to run too far into the opposite extreme of fearing to do anything. Calling attention to this subject will no doubt be beneficial, and lead to an improved general opinion on the subject of the employment of the young.

About 2 years ago the hosiery manufacturers or many of them agreed to give a Saturday half-holiday instead of certain irregular holidays at the races, fair, &c. It answers better for business, and for the work-people both, and is general in the hosiery warehouses, though not in the lace. It would be better if all of both kinds were the same either one way or the other.

All the best hosiery is made by hand power, because the shaping cannot be given by steam power. The difficulty is that the threads must be taken up or dropped as the article is to be made wider or narrower. This can now be done to some extent by steam machinery, but not so perfectly, and the article never can be equal to the hand-made, though, perhaps, in time it may sufficiently so to come into general use, just as machine-made ornamental lace has. Things have been fast approaching this for the last 10 years, and the tendency is still equally strong in the same direction. Probably now half the work is done in factories. Most of the large hosiery warehouses have been built here within about the last 10 years. The present system of frame-work knitting will probably in course of time almost entirely die out.

The evils of the present domestic manufacture are occasioned a great deal by the fault of the men themselves, who will not begin early or work regularly.

A good deal of the mending is done at the bleachers. The seaming goes out into the country to be done. Stretching is done by machinery in the factories. In the warehouse here the work is chiefly folding, marking, and packing. The young persons in it can read and write. The factory has been built about 10 years.

Ann Elizabeth Bannam, age 11.—Here a year. Was at two bonnet front making places before. Was not well there, but hot and feverish, and her head heated and face flushed.

Goes to Sunday school. Was at week-day school for a short time. Spells words of three syllables. Can write a little, but do no sums.

Her hours here are from 9 till 8 in winter, and from 8 till 8 in summer. Has an hour for dinner at 1, and ¾ of an hour for tea at 5.

MESSRS. JAMES WILSON AND SON'S HOSIERY WAREHOUSE, HOUNDSGATE, NOTTINGHAM.

Mr. James Wilson.—The number of persons under the age of 18 whom we employ in the warehouse is so small, that any regulations affecting them alone would make scarcely any difference. If we were busy we should take girls of 14 or 15, but not younger.

The chief employment here is mending, stamping, and folding; the stitching is done in the factory by steam machinery. Our business is chiefly in heavy work, shirts, pantaloons, &c.

The best goods, the wrought, are still made on hand frames, owing to the difficulty of forming the shape by steam power. But this is being gradually overcome, and the work being yearly more concentrated in factories. In a short time probably 80 per cent. of the total amount of hosiery will be made in factories; but in the best class of goods, in which the fashioning requires frequent stoppages, there is no great advantage in the use of steam power. The machinery, too, must be very complicated and expensive, and this also would scarcely allow of a return for the trouble and outlay of the improvements required for the purpose.

The Hosiery Manufacture.

Nottingham.

Mr. J. E. White.

On these accounts the best class of goods will probably always continue to be made on hand frames, viz., the best hose, half hose, and gloves. The latter, however, is a branch of business which is very much declining, owing to the greater use of kid and cloth.

Our warehouse is closed on Saturdays early, and this is now general in the trade, this time being intended to be given in place of some local holidays. It works well, and does not diminish the amount of work done.

The views of other hosiery manufacturers would probably be much the same as mine, except perhaps that some would think that a larger amount of articles must always continue to be made on hand frames, those manufacturers in particular who deal chiefly in the finest sorts of goods.

MESSRS. HINE, MUNDELLA, AND CO.'S HOSIERY WAREHOUSE, STATION STREET, NOTTINGHAM.

This is a large new warehouse, with a long "well" in the centre, in the same way as in the Messrs. Hadden's warehouse, and airy and light.

Mr. Benjamin Hine.—We have a hosiery steam factory and a warehouse. In the latter the chief employment is mending and making-up (*i.e.*, sewing on bands and buttons to shirts, drawers, &c.), stamping marks, folding, and packing. Our present hours for beginning work, viz., 9 in the two winter months, and 8 all the rest of the year, are the most convenient, and if the time is not enough, it suits better to take it at the end of the day than at the beginning; but that rarely happens. The business varies but very little, and our usual hours being nine, exclusive of a dinner hour, ten hours or so, besides meals, would be nearly always sufficient. Still, if there were inconvenience caused by young persons not being allowed to work after 6 or 7, we should have only adults.

Our hosiery of all sorts, chiefly cotton, is sewn by machines in the factory, and also mended there. After it comes from the bleachers a little more mending is wanted. If there is a great deal of work some is given out to women in the country to be seamed. The employment in hosiery warehouses in Nottingham generally is regular and healthy, and of much the same kind as ours.

A Saturday half-holiday was given in most houses a year or two ago, and is satisfactory both to employers and employed.

Hosiery requires so much manipulation, and so many changes of thread, and narrowing, &c., that it is very difficult to do it by steam machinery. Manufacturers have long endeavoured to attain this end, and some have partially succeeded, but I think they never will entirely. It is questionable whether the power-made work will ever be sufficiently satisfactory to come into general use, certainly not in the same way as lace has.

Mrs. Saxton.—Is overlooker. All the girls can read, and keep an account book of their own work (shows one). Thinks that most go to adult evening schools belonging to different congregations, established on purpose for young people after leaving their work.

Susan Camomile, age 16.—Here two years. "Bastes" edges for linings of drawers. The hours are from 9 till 7 in winter, and from 8 till 6 in summer. Does not often stay longer. Sometimes takes work home, not often. An hour for dinner at 1. Tea if they stay beyond the time.

Has been to Sunday school. Was at week-day school for five years. Can read and write, and do "second addition" and multiplication.

MESSRS. DENT, ALCROFT, AND CO.'S GLOVE WAREHOUSE, NOTTINGHAM.

The character of the employment of the young in this warehouse is much like that of ordinary hosiery warehouses.

One part of the work, however, viz., the "trimming" of the gloves or putting a glaze upon them by placing them in gas stoves after being damped, produces an effect upon the air much like that of the bonnet front making in the lace manufacture; the smell of gas being very strong and the air close, and as I entered this room the manager remarked to the women that they ought to have had the windows opened; but as far as I have observed and been informed windows are seldom opened by females in any work places, however close the air may be. On the occasion of my visit, however, none of the persons employed in this room were under the age of 18.

Mr. John Pearce.—I am manager here. The business is finishing gloves knitted on frames. The youngest here are employed in basting or tacking pairs of gloves together, and in other glove warehouses, of which there are a dozen or so in the town, the young, if there are any, are probably employed in the same way. The parts of each glove are sewn together by the family of the man who makes them on the frame, or, if he has none, by women to whom he gives them out for the purpose, so that they come into the warehouse made. The hours here are from 8 till 6, or, if we are not busy, till 5; if we are moderately busy, till 8, which is for about four months; when we are very busy, which is for about two months in the year, till 9. Even in a good year of trade work beyond 10, or even 9, is very exceptional. But if the hours of young persons were limited it would cause occasional inconvenience, and sometimes the loss of opportunities of sale. For instance, it might prevent the completion of the full number of a set of samples to be sent out, such as are being sent out this evening, and thus diminish the orders to be obtained. I do not see how this can be anything but a loss to the trade, or that gloves would be bought from some one else. Things are often bought, not because they are absolute necessities, but because they take the fancy of the buyer, and if particular articles were not put before him at a given time, he might perhaps never buy at all.

It would be very inconvenient to begin earlier than the present hours, as it would be so contrary to the previous habits of the people, though there is nothing in the business itself which would prevent earlier work. Personally, I should be glad of any law that young girls, *i.e.*, up to the age of 11, should not work more than a fixed number of hours.

Maria Shelton, age 13.—"Tacks" gloves together, and has been here 3 years. Work begins at 8 in summer and 9 in winter, but there is no fixed time for giving over, but in either summer or winter they leave work when they have done it. Has an hour for dinner at 1, and goes home to it, but about a quarter of the hands stay and dine in the work room here, and most have tea in the work rooms too, for which they have half an hour at 5. For about half their time they are busy, and stay till 8 or 9, sometimes to about 10; if they are not busy, stay till 7. Has what she earns, about 4*s.* or 5*s.* a week usually.

Was at a week-day school for a short time, and at a Sunday school for 4 years, where she got prizes for doing well. Can read (reads from a newspaper). Can write on a slate. Can hardly remember whether she ever did any sums; thinks not.

MESSRS. JOSEPH MORLEY & CO.'S HOSIERY WAREHOUSE, NOTTINGHAM.

The Hosiery Manufacture. Nottingham. Mr. J. E. White.

This is a very large warehouse consisting of two distinct buildings, each containing many rooms, some large, some small, but none crowded, and all comfortably arranged and provided with all proper conveniences for washing, &c. The hosiery is of the finest and best kind, and part of the work often done by young females, as sorting and folding, is entrusted only to men who have had long training and have acquired a more accurate eye.

One room where the hose are damped and placed over sulphur is very suffocating from the quantity of sulphur used, which causes coughing in persons unaccustomed to it. But a man alone works here, and I have never found a young person engaged in contact with this part of the employment. The gloves are trimmed in a way not open to the objection noticed at another warehouse, viz., that of their being placed in small gas stoves standing in the room, which make the air oppressive. Here they are put on boards and pushed through small traps or pigeon holes in the wall into heated air at the back, which thus does not enter the room.

Mary Ann Shawe, age 13.—Works a stitching machine, and has been here 8 or 9 months. The hours are from 8 till 6, but for about 8 months in the year are till 8, but never after. There is an hour for dinner at 1, and, when they stay till 8, half an hour for tea at 5. Is paid what she earns. Some work is much better than others, but her average is 6*s.* a week, or in a very good week, 8*s.* 6*d.* Could manage the machine after being at it for 3 weeks.

Was at some bleach works for a year, and at school till then, but never was at a night school. Has been to Sunday school ever since she was old enough. Can read (reads newspaper). Can write pretty well, and can do "compound long division" in sums ; that is the highest.

Elizabeth Charlesworth, age 16.—A year here. Makes up. Was at bonnet front making before. The hours here are from 8 till 8. Has only once or twice stayed later than 8, and then only till 9. Some stay in the work room for their dinner hour, and for tea most do.

Goes to Sunday school. Can read, but not write or sum.

William Parker, age 12.—Has "turned" (*i.e.*, turned back again hose before turned inside out) here for 4 years. His hours are from 8 till 6 or 5 ; always the same. At the old place (a separate building formerly used) came at 6 or 6½, and gave over at the same time as now. Has an hour for dinner at 1 ; does not ever wait for it. Has 10*d.* for turning 100 dozen ; can do that in a day and a quarter.

Goes to Sunday school, and did to a night school for a little bit, but it closed because it did not answer. 20 or 30 went, but they were not regular. Now there is a Bible class. Was at a week day school for 3 years, and then went to match-making for 6 months. There were three other boys there. Every Saturday night they used to stay till 10 ; not so late on other nights. Can spell a little ; not write. Made figures, but not right.

[Another boy, aged 9, has been employed with the last in the same way for a year and a half.]

Mr. Charles Dodsay.—Is clerk here. In or round Nottingham are the cotton, merino, cashmere, and silk branches of the manufacture. Round Leicester is the woollen hosiery district. The Hinckley goods are coarse cotton. Bulwell and Arnold were great glove-making places, but now gloves have fallen off, kid nearly superseding silk.

The general impression is that the best goods cannot be made by steam machinery, but in other classes of goods the wrought work is dying out.

MESSRS. HOPKINS, FANN, AND CO.'S HOSIERY WAREHOUSE, NOTTINGHAM.

Mr. John Fann.—We manufacture general hosiery of the best class. We employ in the warehouse 6 women, 2 girls over 13, 2 apprentices, and 6 men. Under 16 years of age girls are not so valuable in proportion to their wages, and are therefore seldom employed in hosiery warehouses. The usual hours here are from 8 till 6 in summer, and from 8½ till 6 in winter, or till 6½ if the hands like tea.

The home trade is regular for 9 months, and on the whole the work runs evenly, with small fluctuations. It is very rarely indeed that the hands have any overtime, scarcely within the last 7 or 8 years. Before that time hosiery warehouses were often open till 11 or 12, but then females were not kept much. This was in order to send goods off, but now the railway will not take them after a certain time, and they have to leave the warehouse by 7; and the day's work is then considered finished. We have not found any substantial inconvenience from this change, and would not care to have the time altered back again, in fact, should say "No," if there were the choice. The power of producing is increased, and if we are busy the number of hands is increased. Occasionally if a parcel is light it is sent off later by the passenger instead of the goods train.

It is a very good thing for the employer not to have overtime. The hands like it because they get higher pay in proportion, and work is often delayed in the daytime for the sake of getting the overtime. I know that this used to be done, and there is always a tendency to it.

Lucy Brady, age 14 —"Turns off" hose, *i.e.*, joins parts together by drawing stitches together with a small hook on a small frame (said to be usually done in the factory). Just come here, but was here for a bit 2 years ago, and "turned off" then too. The hours are from 8½ till 6½, not often later, and she has not stayed after ¼ to 7. Has an hour for dinner at 1.

Left a week school at 10 years old for a bit, and went again for a year or two. Goes to the Sunday ragged school, and to a night school one night in the week to write and two to read and sew. Does not pay for it. Can read the newspaper, and write.

MR. WILLIAM MUSHAM'S GLOVE WAREHOUSE, NOTTINGHAM.

Mr. William Musham.—I was a manufacturer of general hosiery, but have given up all but gloves ; a branch of trade which has very much fallen off since the greater importation of kid in consequence of the French treaty, and will soon probably die out. I employ only one person under 18. There are few in any hosiery warehouses under 15 or 16, but there is more employment for females in them now than there was formerly, when the work was more done by men.

My hours have been from 8 till 7 for the females, which I believe are the general hours in hosiery warehouses here, and I give a Saturday half-holiday. I believe that all, manufacturers and workpeople both, like it, and it does not lessen the amount of work done in the week.

There are but two seasons in the hosiery manufacture. In the bulk of the trade, *i.e.*, white cotton hosiery, the manufacturer knows perfectly beforehand what he will want. For instance, in the natural course of things,

The Hosiery Manufacture. Nottingham. Ir. J. E. White.

in December he prepares his stock for next summer, so that the work is regular, and where the work is as regular as is the case generally, any law would have but little to operate upon; but any legislation upon the subject would probably be strongly opposed at first, and approved of shortly afterwards. It was so in the case of the bleachers.

There is great competition in the hosiery trade, as goods can be imported from Saxony and sold here at less cost than the English. That has been the case for some few years, but the goods are of inferior quality to the English, and less elastic.

Articles can be produced by steam machinery much cheaper than on the hand frames, and at the same time the workpeople can earn much better wages. At one kind of work a man and his wife with hand frames could make only 10*s.* or 12*s.* a week. In steam factories a man making goods of the same quality can earn 30*s.*, or with his wife and boy 2*l.* 8*s.* or 2*l.* 11*s.*, and that kind of article has ceased to be made on hand frames. As different goods come to be successfully made by power, the same principle will gradually lead to the extinction of hand-frame work. The difficulty of narrowing, striping (with other colours), and ribbing also, by steam power has been now to a great extent overcome, and but few things now remain which cannot be done by machinery sufficiently well up to a certain quality, fineness, and price, and the amount so made in factories has increased every year; but the finest quality is still made upon hand frames, and will probably continue to be so for some years.

There are two chief reasons which tend to keep up the hand-frame work: one that already named, viz., the difficulty of doing certain things by machinery, or doing them equally well; the other the great cost of new factory frames, which may be from 70*l.* to 120*l.*, the hand frames costing from 10*l.* to 20*l.*, coupled with the fact that the manufacturers, having property in the existing hand frames, do not like to throw them aside as useless, and to incur the cost of providing the larger and more expensive factory frames. But as the old hand frames wear out they are never replaced, and are not likely to be.

MR. MUSSON'S WAREHOUSE, THURLAND STREET, NOTTINGHAM.

The proprietor of this, as I am informed, a glove warehouse, declined to give any information further than is contained in his statement below.

Mr. Musson.—In his warehouse employs people of any age suitable, probably about 60 or 70 persons altogether, though the number varies, and some of them young, but chiefly between the ages of 18 and 26 or 30. Thinks he has only one girl under 13, and she comes with her mother. The hours of work all depend upon circumstances. There is a good deal of shipping trade, and for that or for other orders work must sometimes be finished in a great hurry by a certain time, or the order would be lost. It is cancelled if not done in time. Would often be put to inconvenience if prevented from keeping young persons at work as long as he had occasion. Has had occasion formerly to keep the hands till 11 and 12 at night. More harm is caused by young females leaving their employment early than by their staying later. Objects to any legislation, and if any were applied to the employment of those under 18 he should give them all up, as orders could not wait.

MESSRS. HORNER AND HOGG'S HOSIERY WAREHOUSE, NOTTINGHAM.

Mr. J. Hogg.—Young people under 16 are not suitable for hosiery warehouses such as ours, and we employ no children. Our hours are from 8 till 6, without tea, which we find answer better than longer. When very busy we may go to 8 or so, but that is very rare, and we find that the additional two hours do not give two hours' work, and I believe that other warehouses find this also. The hours in both hosiery and lace warehouses here are shorter than they used to be. In most hosiery warehouses here they are now, I believe, from 8 till 7.

The Saturday half-holiday is adopted in, I should say, about half of them. A difficulty is occasioned by country customers coming in on Saturday to market.

I am secretary to Wesley's school, in Broad-street. Out of 280 female Sunday scholars on the books in the upper classes, the attendance in the afternoon seldom reaches two-thirds, and the afternoon attendance is considerably larger than the morning, perhaps in the proportion of from three to two to double. The morning attendance of the girls fails most. I have made inquiries into this, and generally found the reason to be that they were engaged at home about the house, and could not come. There is also an infant school of boys and girls mixed, and intermediate classes.

As a general rule, I have observed that the education of the girls has been neglected more than that of the boys. Most of the boys have been to a week-day school a little while, some till 11 or 12 years old; some girls have not been at all. At the Wesley Sunday School a class is set apart to which many of about 15 or 16 come knowing their letters but no more. Warehouse girls, either hosiery or lace, may generally be distinguished from others by their showy dress.

Tabular View of Schools in the Nottingham Sunday School Union.*

No.	Town Schools.	Children.		Adult Class.	Infant School.	Average Attendance.	
		Males.	Females.			Morning.	Afternoon.
1	Independent	235	263	14	51	327	425
2	General Baptist	149	180	25	40	137	260
3†	Wesleyan Methodist	346	432	—	100	222	518
4	Great Eastern Street Branch	114	108	—	85	83	148
5	Primitive Methodist	205	206	88	80	180	220
6	Independent	197	289	—	60	253	353
7	Baptist	120	160	22	—	80	145
8	Baptist	290	350	78	150	183	437
9	General Baptist	156	235	97	—	207	245
10	Bath Street Branch	108	140	—	40	90	160
11	Methodist New Connexion	136	208	34	46	177	254
12	Sherwood Street Branch	88	115	—	—	138	170
13	Independent	72	149	31	31	99	168
14	Baptist	242	532	178	110	260	536
15	Wesleyan Methodist	200	231	58	80	120	201
16	Arkwright Street Branch	109	144	34	43	150	187
17	Primitive Methodist	94	142	72	45	106	170
18	Independent	60	85	—	10	61	94
19	Baptist	70	110	22	32	90	139
20	Mission Schools	140	150	—	84	86	210
21	Wesleyan Free Church	74	98	—	—	61	88
22	United Free Church	184	217	—	41	148	252
	Total	3,389	4,524	823	1,124‡	3,328	5,380

* Extracted from the Report, 21st April 1862.
† Further particulars relating to this school are given in the next Table.
‡ 1,128

The Hosiery Manufacture.

Nottingham.

Mr. J. E. White.

LIST showing ATTENDANCE, WEEKLY OCCUPATIONS, and AGES of 167 FEMALES present at WESLEY'S SCHOOL, BROAD STREET, NOTTINGHAM, on the Afternoon of Sunday, 23rd November 1862. The Number on the Books for these Classes is about 280, and the Attendance is stated to be a full Average.

CLASS.	AGE.													Lace.	Hosiery.	Factories, (Silk, Cotton, and Hosiery).	Miscellaneous (Boxes, Cigars, &c.)	Home.	Service.	Weekly School.
	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	Above 18.							
1st Class (select) -	–	–	–	–	–	–	–	–	–	–	–	–	8	3	—	—	1	—	4	—
2nd ditto - -	–	–	–	–	–	–	–	–	–	–	2	2	15	7	3	6	—	—	3	—
1st ditto (adults) -	–	–	–	–	–	–	–	–	–	–	1	1	3	1	1	1	1	1	—	—
2nd ditto - -	–	–	–	–	–	–	1	–	1	–	–	2	2	4	—	1	—	1	—	—
3rd ditto - -	–	–	–	–	–	–	–	–	–	–	–	5	1	3	—	—	—	3	—	—
4th ditto - -	–	–	–	–	–	–	–	1	2	3	–	1	2	6	—	—	1	1	1	—
5th ditto - -	–	–	–	–	–	–	–	–	1	–	1	1	4	4	1	—	1	1	—	—
6th ditto - -	–	–	–	–	–	–	–	2	3	1	1	2	–	6	—	—	2	1	—	—
1st ditto (Bible) -	–	–	–	–	–	2	–	–	–	2	1	2	1	5	—	—	—	—	1	2
2nd ditto - -	–	–	–	–	–	–	3	1	1	4	1	–	–	7	—	—	—	2	—	1
3rd ditto - -	–	–	–	–	–	1	1	–	1	2	1	2	–	6	—	1	—	—	1	—
4th and 5th ditto -	–	–	–	1	–	2	–	5	2	2	–	–	–	7	—	—	—	2	2	1
6th ditto - -	–	–	–	–	1	1	–	2	–	–	–	–	–	1	—	—	—	1	1	1
7th ditto - -	–	–	1	–	–	–	3	3	–	–	1	–	–	3	—	—	3	1	1	—
8th do. (Testament)	–	–	1	1	1	2	1	3	–	–	–	–	–	3	—	2	—	—	—	4
9th ditto - -	–	–	–	–	3	–	2	–	–	–	–	–	–	3	—	—	—	1	—	1
10th ditto - -	–	–	–	–	4	1	–	1	2	–	–	–	–	2	—	—	—	2	1	3
11th ditto - -	–	–	–	1	1	1	3	1	1	–	–	–	–	3	—	—	—	2	—	3
12th ditto - -	–	–	–	–	–	4	–	1	–	–	–	–	–	2	—	1	—	2	—	—
13th ditto - -	1	1	1	2	3	–	–	–	–	–	–	–	–	1	—	—	1	1	—	5
14th ditto - -	–	–	1	1	2	–	1	–	–	–	–	–	–	1	—	—	—	2	—	2
TOTAL - -	1	1	4	6	15	14	15	20	14	14	9	18	36	78*	5†	12‡	10	24	15	23§

* Of these 78, about only two were in factories, and four in dressing-rooms.

† Of these five, all were in warehouses.

‡ Of these 12, only one was in a factory.

§ Taking from the total 167 the 36 above 18 years of age, this gives 23 out of 131, or about 1 in 6, as attending weekly schools.

ARNOLD.

Nottingham District. Arnold.

Mr. Thomas Oscroft.—I am a hosier (middleman) in Arnold (a village about 4 miles from Nottingham), and have in my house 10 frames worked by men. The population of Arnold is about 4,600 or 4,700 living in 1,000 or 1,100 houses, and in about three-quarters of these houses there are frames; in some one or two, at the most ten, in the greater number less than four; altogether about 1,100 or 1,200 frames. I took an account of these not long since. About 400 or 500 of these frames make the best wrought stockings, the work of which is very fine, and must be done very slowly. The winding required for this kind of work is but little, and is done by the men themselves. This branch, however, is decreasing.

About 100 frames make "drop off's," "cut up's," and "straights," a coarse kind of work which requires a good deal of winding. About 400 or 500 frames make shirts, drawers, and pantaloons, of spun silk or cotton. These also require a large amount of winding. There are also about 50 glove frames.

The winding is done by the man's children, if he has any; if he has not, by another person's child, nearly always a boy. A child usually begins to wind at about the age of 8, and can wind for about three frames; but the winding is not the same in all cases.

There are no regular hours, but the work must be done as it is wanted. The men are always slack at the beginning of the week, and busy towards the end, especially on Friday night, as on Saturday morning the work must be ready early to take into Nottingham. The average time for leaving off work is at sunset in summer, and at about 10 p.m. in winter. But few use gas; many have paraffin. There are no particular seasons in the business. The wrought hose branch depends almost entirely upon orders. There is generally very fair time given for these, and the employer knows in how long a time the hands can do a given quantity of work. This is not longer at one time than another.

The seaming is done at the men's own homes by their wives and children, or given out to other women. The pay for seaming is generally about 1*d.* in the 1*s.* of the whole cost of the article, or a little more. The circular-made stockings want welts turning at the top; a young child cannot do this. Feet also are made separately for the common stockings, as many as 6 at once on a wide frame, and are then sewn on. The work is brought from Nottingham and carried round in bags, and a sufficient number of women and children are always found to do the needlework.

The girls begin at the seaming very young, when they ought to be at school—as young as 5. Very few girls between the ages of 7 and 12 go to school except on Sundays, as most of them are seaming. Some go on at that work till they are 18 or so; others learn to work in frames, which they do at 12 years old at wrought work frames, but they always do this at home, and do not go out to that work. A large number of girls, 100 probably, of from 12 to 20, go into Nottingham every day to factories and warehouses, as they do from all the villages round. There are in round numbers at the following villages the following amounts of frames;—At Lamley, from 100 to 200 frames; at Woodborough 60 or 70; at Calverton about 300; at Hucknall 300 or more; and at Burton Joyce 40 or 50. At these places, all in the neighbourhood of Nottingham, the work is of the same kind as in Arnold. For the "cut up's" and "drop off's," which are made in three or four different frames. the following are the principal places:—Mansfield, Sutton, Mansfield Woodhouse, Ruddington, Ison Green (with 600 or 700 frames), Sneinton, and New Radford, also all in the neighbourhood of Nottingham. The principal glove places are Bulwell, Old Radford, and Ison Green.

[This account of the manufactures of Arnold and its neighbourhood was corrected by several of the men working for Mr. Oscroft, who were present.]

William Palmer.—Works in one of Mr. Oscroft's frames. Boys generally begin to wind for frames at about 9 or 10 years old, and get about 2*s.* 6*d.* a week for about two years. His own boy, now nearly 6½, who has been winding for 3 months, and is slow at learning, can wind for two shirt frames.

There is but little work now, but even in good times there is hardly anything done on Monday. The men begin on Tuesday morning at about 8 or 9. His boy does not work after 5 or 6, except on Friday, when he stays till 8 generally. When boys are a little older and wind for three or four frames, they stay longer. Frames generally go on till 9 or 10 p.m. in the latter half of the week. There are always plenty of boys to be had for winding.

When about 12 most of them learn to work in frames, for wrought hose at first, but they cannot make these hose by themselves for half a year, and cannot do entirely without help for two or three years. They begin the shirt frames at about 13; that is heavier work.

The Hosiery Manufacture.

Nottingham District. Arnold.

Mr. J. E. White.

Cornelius Kirk.—Works in a wrought hose frame at Mr. Oscroft's. Boys do not often go out to wind under 7 or 8 years old, though in a few cases they may. They wind at home earlier. The common time to begin in the morning is at about 8 or 9 in winter and 7 in summer. The average time for winders to leave off "the week through" is 9 p.m. But some wind till 10. That is too late.

Joseph Rockley, age 11.

Has been a winder for glove frames at Thorpe's shop for half a year, and was a winder at Peck's for half a year some time before. There were 8 frames there, and one other winder a little older than himself (9 then). They used to go at 7 in the morning and leave at 10 at night usually all the time he was there. Some weeks were more busy than others, and they were "throng" at the end of the week, and some nights, chiefly Fridays, he stayed till 11. Sometimes however he left at $6\frac{1}{2}$ or 6. When not winding he did odd things, and nearly always had something to do.

Winds at Thorpe's now for the 7 glove frames, and sometimes for a shirt frame there also. Goes at 7 or 6 in the morning, and leaves at 10 and 11 at night. Those are his usual hours except at odd times. Has stayed twice till 12 at night. Has about half an hour for breakfast, an hour for dinner, and half an hour for tea, but at no fixed hours. He goes home and back again as he is wanted if they are "throng." Has 3*s.* a week now. Had 2*s.* 6*d.* at Peck's.

Began to work in a frame at home a year ago. When 7 years old went to a free school for two years. Can read (a few short words only). Tried writing at the Sunday school. Used to write "m-o-o-n—moon." (Large figures shown), reads 27 as "72," 21 as "12."

Anna Rockley, age 9.—Began seaming at 6 years old. Goes to school and takes seaming work with her to do there, and all the other girls do the same. Pays 2*d.* a week for school. Learns there to read and spell. Reads (a few short words). "Cow" is "cow," "sea" is "sea." (Cannot explain more.)

William Rockley.—Is father to the two last witnesses. All cotton and wool hosiery here has been very slack for the last 18 months, though silk was brisk till lately. There are but few winder boys kept now. There are about 12 or 14 shops in Arnold that have a winder or two each. The boys begin to work in frames at about 12 years old, but some begin at the wrought hose frames younger, but generally at home, unless they go out with their father somewhere, or some one takes them for pity's sake. It is two years before they are of much use. They begin at "cut ups" and "shirtings" a little later. It is about as much as they can do, and some are not able, that is, not strong enough, and they fall badly and turn ill. About the third year they get on better with the work.

The girls do seaming at home, and also work in frames, which they begin at about the same age as the boys, but it is "heavier" for the girls. Girls, however, very seldom go out to work in frames, or even to wind, though he knew one or two that went out to wind. Thinks that the girls who cannot afford to go to day school go to Sunday school.

Mr. Charles Thorpe.

I am a glove hosier (middleman) in Arnold, and have a shop with 7 glove frames, which I rent and let out again to the men, and also let standing room for a shirt frame. Each man pays me 1*s.* 3*d.* for his share of the frame rent, 6*d.* for a winder, and 1*s.* 3*d.* for my profits. The men get the stitching done themselves, generally by their wives and children, just as in seaming. But few in Arnold make gloves; the others, shirts, hose, &c. Some common stockings are made in three or four parts, one kind of frame making the tops, another the middles, another the bottoms.

Some of the men are idle early in the week, and make it up at the end; some beginning even on Wednesday morning will do as much as the rest. They "infringe" very much on the night, till 11, and in odd cases longer, but not so much on Friday as they used to do. There is less trade now. Some make 7 or 8 or 9 days in a week. It is generally the quick ones that begin late. They cannot do without winding, and cannot wait to do it themselves, so they keep boys, unless they have children of their own, to do it. In wrought hose less winding is wanted, so the men do it themselves. Shirts and gloves both want winders.

There are not more than about 25 glove frames in Arnold, and these are in perhaps half a dozen houses. When trade was good there were 50. There are some in a few other places near here, and one in Leicestershire. The usual system is for the warehouse to give orders and supply materials, but one large house has ceased to do this, and only buys the gloves ready made. As the man who makes them or gets them made cannot afford to keep them on hand, he must sell them on the buyer's terms; and the effect of this is to discourage and reduce the glove trade.

The glove making season for the spring and summer begins in November, lasting about 7 months, and then is rather slack for a couple of months, and then better again, but there is not much season in the trade, and it is pretty even, but the trade has been sinking. A strike often happens from the manufacturers lowering the pay too far.

Many boys are employed as winders away from home at about the age of 8 or 9, but are not fit before, though they learn at home at about 6 or 7.

Some are set to frames at 8 years old, but that is rare, although they often are at 9 or 10, and more begin before 12 than after. They are not fit before 14, as the work is beyond their strength. In nine cases out of ten they are put to shirt and cut-up hose frames before they are 14, but sometimes they are put out to work in a shirt frame before 11, having learned at home first. A boy that I know began in a shirt frame at 10 years old, and had been a winder from 6. Girls used to begin in frames at about the same age as boys, but fewer do so now, as they go more into Nottingham to lace work. That is "a slave's job;" they get back to Arnold at 11 and 12 at night, and have to be up very early to get back to Nottingham in time for work.

Agatha Thorpe.—Is wife of last witness. In many cases the work (seaming, &c.) is not got out from the frame shops till towards the end of the week and must be finished by Saturday, and mothers keep their children up at work till 10 or 11 for two or three nights in a week, and when quite young, from 7 or 8 years old or so. Children do not begin work before breakfast, and some take their work to school with them. They begin with "cut-up" work (coarse kind). If they are stitching gloves the mothers have to put the glove on the child's finger to work, as the child cannot do so itself.

Robert Moore, age 16.—Works in a shirt frame at Mr. Thorpe's, and began at 14. When at full work comes at 6 in the morning and leaves at 8, 9, or 10 at night, but has no set time. Works for himself, and has done so for a year. After paying all expenses has earned in a good week 11*s.*, coming at 5 or 6 in the morning and leaving at 10 at night, and doing his own winding. Gives the boy there (Joseph Rockley, age 11) 8*d.* a week to wind for him now. About 10 "is the regular give over." At first he learned for his father, and used to work for the same times, from about 6 in the morning to 10 at night, and "going-in night," or when "throng" till 12 regularly; once till 1, and on that day began at 5 in the morning. When they were "throng" 5 was the common time. His father and he used to have a boy of about 13 to wind for them; he did not stay after 10 at night.

MR. F. PEMBLETON'S FACTORY, RED HILL, ARNOLD.

The Hosiery Manufacture. Nottingham District. Arnold.

This place, or "factory," as it is usually called, though no steam or other power is used, is a large and airy shop, at some distance from the village. The frames called "rotary," and turned by handles are most of them wide, two or three being as much as 120 inches. There are about 20 frames altogether, and 24 men, 2 youths, and 4 winder boys.

Mr. J. E. White.

Mr. Frederick Pembleton.—I am a manufacturer of shirts and hose, of cotton, merino, and silk, with wide rotary frames. The hours are from 6 a.m. to 8 p.m., and the same all the year, with an hour for dinner and half an hour each for breakfast and tea. There is no change of season in this work.

When very busy I have two sets of hands, each working 10 hours. Five or six years ago I had two sets regularly for six months, working from 4 a.m. till 12 p.m., but even then I do not keep the young ones after 8 p.m., but put on other hands. I am a great advocate for boys and youths being in bed in time; they ought to be. If I were under the same regulations as factories it would not inconvenience me.

I never had a boy in a frame under 14. Boys go out to wind, and any man with six or seven frames would keep one. Probably about a dozen in Arnold employ a paid winder.

When the trade was good there were men who would not go to work till Wednesday or even Thursday morning, and then work late on Thursday till 10 or 11, and perhaps all night Friday. The winder has to do as he can. If there are enough spare bobbins, as, I believe, most men keep, he may get some wound beforehand for the men to go on with, but there is not so much of this late work now as there is hardly anything to do, and has been but little for two years.

But since trade has been so bad the orders and material have, I believe, been given out later from warehouses, often not till Wednesday or Thursday, and yet the things are wanted back in two or three days, and that makes pressure.

When the work on the frame is completed it is cut up and given to women to seam.

I should say that a girl never works away from home at a frame, winding, or seaming. The articles when seamed, &c. are taken to the warehouse and are afterwards shaped and finished at the bleachers.

John Taylor.—Works in a frame here (an adult). The age of beginning in a frame depends more upon the circumstances of the parent than upon the age of the child. Some of the poorest begin very young. Has seen one begin as young as 8; at 9 is not uncommon, or rather was not when trade was good. The parents cannot help putting them in early. A boy might properly begin a small frame at 12 years old.

William Peck, age 15.—Has worked a small rotary frame here for a year. Before that worked at his brother's for a year. There were three frames, and his younger brother, 8 years old, wound for them. Their regular hours were from 6 to 6, and at odd times to 8 or 9, but then his brother would wind enough for them by dinner-time, viz., 12½. Had an hour for dinner and half an hour each for breakfast and tea.

Was at week-day school till he was 10 years old, and has been on Sundays, but not lately, and never to a night school. Can read easily, and could write well, but has forgotten; began to sum a little, but had to leave school.

James Alvey, age 13.—Has been a winder here two years. Was a year at another shop where there were eight frames and one other winder. Both the winders lived there altogether, and began work at 7 in the morning; were not often "throng." Those frames made "spider" hose; there were some leggers and some footers. Has not been to school regularly that he can remember.

DAYBROOK.

Daybrook.

This place adjoins Arnold, and the work is of the same character.

Mr. Benjamin Smith.—I am a hosier (middleman) here, and have 17 frames, making shirts, pantaloons, and drawers, cotton and merino. The men are paid so much a dozen and work as much or as little as they please. My son, a youth, works in one of the frames, and also pleases himself as to his work, and there is one other youth of about 15 who works in a frame in the same way; he can make 8*s.* or 9*s.* a week, clear of expenses.

There are three winders, all from about 10 to 13 years old; they come at about 8 in winter, and in summer at about 7, and stay till 8 or 9 at night. 9 is quite late enough, or too late, if anything, and I always let them go by then, and sometimes when the men want to keep them later I send the boys off; but some work later both in shops and at their own homes. Meal times are allowed here; an hour for dinner, and half an hour each for breakfast and tea, and the boys are not kept very close to these times. There is no overtime, but sometimes the men may give the boys a penny or two for staying a bit. The work falls pretty evenly where there are several frames, for it seldom happens that all the men are "shacking" at the same time, but one or two now and one or two then, so that they do not all want to make up their time at once. Boys begin to wind at about 8 or 9 years old, but do not often go out winding earlier. If they are poor they are put into frames too early. A boy to begin at 13 should be a strong youth, even if it is only at light work, *i.e.*, with a small frame. I am sure that beginning at 16 is quite soon enough for the bodily strength. In many frames boys cannot reach properly before that age. I can see round here many who have been stopped from growing into healthy men from their working too young, and being "clammed" (starved). The men who work the frames get the seaming done; but children would not anywhere be brought together to one place for this work, because one man would not make enough work for more than his wife and children. A good deal of stitching is done in factories by machines, and girls go to work at that. A boy (a relation) goes in from here to Nottingham to a hosiery factory in which there is, I believe, no steam power in use now, and comes home very late at night, at 10 usually, sometimes at 11, or about 12, and is very tired; it is an hour's walk for him each way. There are about 150 frames in Daybrook, nearly all shirt frames. There are one or two in most houses, and probably not more than half a dozen places where there are enough together to have a boy kept to wind. Trade has been very bad for the last two years, and indeed for the last five, particularly in the winters. The work is often wanted back at the warehouses in a great hurry.

The work in all the villages round is much of the same kind, and carried on in the same way, as in Arnold and Daybrook.

RUDDINGTON.

Ruddington.

Rev. Henry Bell, Incumbent of Ruddington.

This village, which is about 5 miles from Nottingham has a population of about 2,500, of whom about two-thirds are engaged in the hosiery manufacture. The frames here are not worked by power, but the manufacture is gradually being removed into the large factories.

The Hosiery Manufacture.

Nottingham District. Ruddington.

Mr. J. E. White.

Children and young persons are employed in great numbers, chiefly in their own homes, in winding cotton bobbins for the frames and seaming the materials produced to form hose. They begin at very early ages, sometimes as young as six or younger. The work is light, but is often carried on in crowded and unhealthy rooms, and the air is often foul, but I believe that the hours are not excessive. Large numbers of boys of 12 years old and upwards, are also employed in working frames. In the villages round Nottingham very large numbers of children and young persons are employed in the same way.

In consequence of this employment, as a rule I cannot get girls to attend the national school beyond the age of 7 or 8, as the girls are not allowed to bring their seaming. There is a large free school where many stay older, as till between 13 and 18, but these are of rather a higher class, who are not employed upon hosiery.

Bulwell.

BULWELL.

This is a large straggling village, four miles from Nottingham, with a population of nearly 4,000 persons, living in narrow dirty lanes, dependent chiefly on the manufacture of gloves knitted upon hand frames, and from the decay of this trade now in great poverty.

Mr. Benjamin Lee.

I am glove manufacturer (middleman) here, having 40 frames which I let out. There were about 600 frames in the village, but about three years ago the trade fell off very much, and more so still in the last year, and now there are not more than 200 or 300 frames. These are all in private houses, 1, 2, 3, or 4 to a house. Most gloves now made here are made on a single frame, and are of cotton or spun silk. The decay of the trade is owing to the increasing use of kid gloves. In the neighbouring village of Hucknall they have taken to making falls, shawls, &c. of Shetland wool on the frames instead of gloves.

The thread is wound on bobbins by a child of the family, or if a man has several frames, and wants more winding than his wife or child can do, or has no family, he employs a neighbour's child. A child begins this work at about 9 years old. There are no fixed hours of employment, but the work is done as it is wanted, and as orders come. The usual time to begin is after breakfast, and to leave off about 9 or 10 p.m. when busy. But in many houses the frames are going very late, past midnight.

The stitching of the gloves is done by women and their own children in their homes here. The chevening (embroidering) is done by women in Nottingham. Girls begin to learn to stitch at about 6 or 7 years old, but as trade is now the women alone do all that is to be done.

Mary Thorpe.

Little children here begin to work at stitching gloves when very young. My little sister, now $5\frac{1}{2}$ years old, can stitch a good many little fingers, and is very clever, having been at it for two years (*i.e.*, began when she was $3\frac{1}{2}$ years old). She used to stand on a stool so as to be able to see up to the candle on the table. I have seen many begin as young as that, and they do so still, because it makes them cleverer if they begin young. Parents are not particular about the age if they have work, as they must do it.

Little children are kept up shamefully late, if there is work, especially on Thursday and Friday nights, when it is often till 11 and 12. They have to make two days out of Friday. Children younger than 7, but not younger than 6, are kept up as late as that. Mothers will pin them to their knee to keep them to their work, and if they are sleepy give them a slap on the head to keep them awake. If the children are pinned up so, they cannot fall when they are slapped, or if they go to sleep. I have often seen the children slapped in this way and cry. The child has so many fingers set for it to stitch before it goes to bed and must do them.

Many women and girls too will sit up at work all through the night till 7 in the morning. Girls as young as 13 or 14 will do that, and girls of 11 and 12 will sit up till 1 and 2, but not beyond that. However, the times will depend upon the mothers, who are different as to this. I have sat up myself stitching all through the night, after being at work at a factory all day, and others will stitch after their day's work in the same way.

Girls do not go out to do stitching only, but little girls of 8 or so often go out to nurse a baby, and have to stitch while the baby is asleep in the day, and they are kept to stitch after the baby is put to bed. On Thursday and Friday nights they are kept till 9 and 10, if good wage is given, *i.e.*, towards 2*s.* a week. It is seldom as much as 2*s.* 6*d.* Parents will not generally let them stay later than 9 or 10, because they think that they have done enough work for the money then, and they often want them to stitch for themselves at home when they get back. I went out myself to nurse a baby when I was "going seven." I was always kept to stitch on Thursday and Friday nights till 9 or 10. Once I was kept till 11, and my father came and fetched me away, and would not allow it any more. But he was very particular. I always went at 7 in the morning, except on Mondays and Tuesdays when I went at 8 and had my breakfast first. It is quite common for little girls to go to nurse and stitch so still.

What makes the work come so heavy at the end of the week is that the men are "shacking" at the beginning. On "Saint Monday" they will go pigeoning or on some other amusement, and do but little on Tuesday beyond setting the winders to work, and most do not begin regularly till Wednesday. "Saint Monday" is a common name with them. There are some, however, who work regularly through the week if they can get work. It would be much better for all to make Monday like any other day. As it is the work is always behind, and comes in to the stitchers at all times on Friday night, up to 12, and 1, and 2. They must sit up to do the work then as the gloves have to be finished and taken into Nottingham in the morning.

When the men work late the winders, young boys, must also, but not so late by an hour or two, as they can get ahead of the men. Still if they do not wish to work unseasonable hours, they can take scarcely any time for their meals on the late days as they have so many "slips" (skeins) set them to wind and must finish them, but anyhow they will have to stay some nights till 11. If a man has a few frames and no child of his own suitable, he employs a boy to wind, and keeps him on Thursdays and Fridays till 10 and 11 p.m., *i.e.*, as late as the parents will allow; though parents sometimes will keep children of their own winding till 1 or 2. After that they wind for themselves if they want it. There are, I think, about a dozen shops in the village in which there are as many as six frames. Boys go out to wind at 7 or 8 years old.

Boys stitch fingers too sometimes. I have seen a boy (names him), 12 years old, come home from winding at 8 or 9 o'clock, and then set to stitch "three dozen fingers," *i.e.*, the fingers of three dozen pairs of coarse

gloves. He works a frame too sometimes, getting into his uncle's when he (the uncle) goes to dinner. This little boy is without a real home, and very much put upon where he is, having to do and go through all sorts of things. I have heard him ask "Am I big enough to be a sailor?"

This statement was made in the presence of the clergyman of the parish, to whose house the witness happened to come while I was there. He stated that he had known her for a long time, and that she (about 25 years old, and the owner of two small houses) was thoroughly respectable and trustworthy, and that he had no doubt that the whole of her statement, even to the detail of children being pinned to the knee, was strictly true; and as far as could be judged from her manner this was certainly the case.]

Sarah White.

Children are not of much use at stitching till they are about 7, but they are cleverer if they begin to learn at about 6, and some do. Her rule is to put her children to it as soon as they can do anything, instead of letting them run about doing nothing, as some do. The work is not "dree," except doing the finger ends and black work. Her little girl Lizzie there, aged 11, (next witness) began at 6 years old, and is very clever and useful, and can now do as much as witness herself. The biggest part of the little girls in the place stitch in the same way when there is anything for them to do, but trade has been very bad lately. About Thursday the stitchers begin to work very hard. This is because many of the men are "shacking" on "Saint Monday," and often Tuesday too, though some steady hands begin early. Began lace running herself at 11 years old.

Elizabeth White, age 11.—Began stitching at 6 years old. Can do a dozen fingers between breakfast and dinner. Does three fingers to each pair of gloves. Mother does the rest, viz., hands, thumbs, and little fingers in the same time. Has done 3½ dozen in a long day, *i.e.*, from about 8 in the morning till 12 or 1 at night. Worked till 1 o'clock last night (Friday), and had begun at 9½ in the morning. Her general time on Friday night is sometimes till 12, sometimes till 1. Has been odd times after 1, but thinks she has never turned 2. Began to work till 12 and 1 when she was about 9 years old.

Can see very well always, even when working late at night plainer than in the day, if the days are dark. Her eyes ache most nights when she is on the black, not otherwise. Cotton gloves are 5*d.* the dozen (pair) for stitching, 6*d.* if black, and 3½*d.* if small (child's).

Has gone to school for half days. Can read and write. (Shows a neatly written copybook filled.) Learned sewing also, but no sums.

[This child looked cheerful and well, and, as well as her little sister, is well taught, and the house also looked neat and comfortable; though I was told that the family are sometimes a day almost entirely without food.]

Jane White, age 5.—"I'm 5 years old, and going 6." Has begun stitching, but since the summer (it is December); "only for pleasure" (the mother says). Goes to Sunday and week-day school. Reads without spelling "it is wicked, &c." That means "being bad children."

Eliza Watson.

Is stitching gloves. Began at 5 years old. Her little girl there, Elizabeth Ann, just 5 years old (next witness), has stitched a few fingers. She (the child) began several months since, and can do them nicely. In good times little girls begin at a very early age, and by 6 or 7 get useful. In some houses little girls of 8 or 9 stay up at work till 9 or 10. That is too late. Has sat up herself all through the night at work, and "many more beside me have." But she would never do it again as she has done, because it would soon kill anybody. When there is plenty of work it is quite common to work past midnight. Often girls will sit up all night to earn something to get a new dress with at Whitsuntide.

Elizabeth Ann Watson, age 5.—Has stitched some fingers. Has begun several months. (Was 5 last month.) That (picture of dog) is "dog." Knows a few large letters.

[This child was depressed and timid far beyond other children of like age.]

Jeremiah Oldham, age 14.

Works in a glove frame. Before that was a winder ever since he was able to wind, *i.e.*, ever since 5½ years old. It took him about five or six months to learn winding, and then he could do it pretty well. When he was 8 years old he could wind for seven or eight frames. That would take from about 7 in the morning to 11 or 10 at night. He was at work most nights till about that time, and on Fridays sometimes to 12, but never past 1 a.m.

Two years ago he left off winding and began to work in a frame, and works at it from about 8 a.m. to 11 p.m. Those are his regular hours every day, and have been since he began. But at first you cannot keep at it all the time. It makes the arms and wrists ache; no other part. It took him about three months to learn. Some would get used to it sooner. "A very many" begin to work in frames as young as 10. Most do. It takes him about seven hours to make a dozen, and in a common day he makes 1½ dozens. Has done 2½ dozens in a day. Some could do more, and he has heard a boy of about 14 say that he had made 14 dozens in a week. "That's about two dozen and a half every day." Witness has six dozen set him to make in a week, and gets 1*s.* for himself for each dozen which he makes beyond that. The gloves which he makes are about 1*s.* 7*d.* or 1*s.* 4*d.*, or if black 2*s.*

The work makes his eyes ache at night, most nights when he is on the black. Stops an hour in the middle of the day for dinner, and half an hour for tea.

Has been to school on parts of days. Can read (but little). Can write, "not very well." (Asked about sums) "Never done one in my life." Does not know what an animal is, or whether that cat there is one.

[This boy is very depressed and listless, and without any of the vivacity natural to his age, but with the manner of a grave middle-aged man, but I was told that he was not, as I had thought, in bad health.]

John Oldham.—Is father to last witness. When trade was good the common age for a boy to begin to work in a frame was about 14. A boy is strong enough at 12, unless he is very delicate, and that is a good age to begin. A boy's glove frame is 16 inches wide. A wider 18. Many years ago he heard speak of boys beginning at 7 and 8 years old, and having the seats and treadles raised for them, as their legs and arms were too short to reach without. But they do not begin so soon now, as the trade is not worth learning, and boys are going off to bleach yards, coal pits, &c.

The Hosiery Manufacture.

Nottingham District. Bulwell.

Mr. J. E. White.

Thomas Williamson, age 12.

Winds for father here, and for another man in the next house, and has been a winder for four years. Could wind for six frames. When he is busy he begins after breakfast, and leaves off at 7 or 6, but he has wound till 9 or 10. Is paid $2\frac{1}{2}d.$ for a score slips. The most he ever won in a day was 96 slips (about 1*s.*) That day he had begun at breakfast time and done by 4 p.m.

Has been at Sunday school ever since he was 4 or 5 years old, and to a week school for a short time. Can read (does.) Is beginning to write. Never did any sums.

Rev. Herbert C. Brewster, Curate of Bulwell.

The inhabitants of this parish, 3,800, are all extremely poor, their staple trade, glovemaking, having been fast failing for the last few years, particularly for the last three or four. I have understood that it was very prosperous till about 10 years ago, when a strike amongst the men led the manufacturers to distrust them, and to withdraw many of their frames to Belper and elsewhere. The rent now paid for frames is about half what it was. In good trade it was often very high.

The place is very badly provided with the means of education, and a very small proportion of the people can afford to pay anything at all towards it for their children. It is very few that are able to continue the small weekly penny payments to the clothing clubs. For the same reason the book club is now closed, though the payment was only a half-penny a week. When once they are in arrears they cannot make them up, and do not like to show themselves again.

There is a Church Sunday school, with an average of about 150 girls, from 4 years old upwards, about eight being between 18 and 25, who come from factories, &c., and a boy's school of about 110. There are Sunday schools of other kinds, with probably a larger number. There is also an endowed school for boys, but not in an efficient state, and the numbers very small. There are also two dames and a master, who have day schools. But at all (the day schools) there is a weekly payment of 2*d.* or 3*d.*

In former years I have had night schools with as large an attendance as the room would allow of, about 50 ; but this year, owing to the general poverty from the depression of trade, money cannot be spared from more pressing purposes, and even the lighting and warming of a room cannot be paid for.

The employment is very irregular, and will probably always be so for the future, to judge from my experience. The irregularity is greatest where there are one or two frames in houses. Only the most industrious men begin at the beginning of the week. Even in good times many will not begin before Tuesday, and even Wednesday. On Thursday night they work very hard. I have heard the frames going at 2 a.m., and have no doubt that some work all through the night. Where there are a few frames together in a shop the work begins earlier in the week, and is more regular, probably because the owner of a shop is, as he naturally must be, a man of more industry and energy.

After the glove comes off the frame it has to be stitched by the wife and children, and to be ready to be taken in on Saturday. This keeps the families up very late on Friday night.

The persons in Bulwell in whose names statements are made above are fair specimens of their class, and trustworthy.

The following letters were afterwards written by Mr. Brewster in answer to questions put to him by me, whether any protection could be afforded to the young, either by requiring licences for frames or by making the head of a family responsible for excessive work in his house.

Bulwell Rectory, Nottingham.
18th Dec. 1862.

Dear Sir,

I am sorry to say that upon consideration I do not think that any system of requiring a licence for working frames would be of appreciable benefit to the children employed in this village. The winding and stitching would always be done in private houses, and *there* I do not see how any method of limiting the hours of children's labour could be enforced. A licence might affect a young boy set to work in a frame too early, but only partially, for such cases rarely occur in shops where more than the members of one family work, and in private houses, where the whole family benefit by the child's labour, any law would constantly be evaded.

The root of the evil, and the cause of most of the crime in the parish, is the system of working frames at home. On Tuesday last I heard but *three* frames at work, and they were all in "shops." In good times the men *will* not work early in the week ; in bad times they *cannot*, for the work does not come to them.

The gradual decay of the glove trade during the last few years has, I think, increased the evil of overworking very young children. In many families it is not worth while keeping a boy to wind or a girl to stitch, when the winding or stitching will not completely support them, and they are old enough to leave home, so the work devolves on children from 5 to 9 years old, who must be kept at home, and the produce of whose labour is so much clear gain to the parents. And so long as this class of labour is carried on in private houses I do not see how any legislation can be brought to bear upon it.

I remain, &c.

J. E. White, Esq. Herbert Brewster.

Bulwell Rectory, Nottingham,
5th Jan. 1863.

My Dear Sir,

With regard to the overworking of young children in this parish, I think that making the head of a family punishable for gross cases of such overwork might, and probably would, have an indirect influence in gradually checking the practice. It could not act quickly, or very directly, because of the extreme difficulty there would be in obtaining evidence in most cases. But supposing a *small fine* were imposed, half of which were to go to the person giving information, there would always be some few cases brought to light, either through children who run away to escape ill usage, or through discharged servants and "nurse girls," or, in the worst cases, through the indignation of better-thinking neighbours. The fine must be *small*, or the attempted remedy would defeat itself, for the people through long habit have become hardened to the evil, and in their poor condition a heavy fine would arouse popular sympathy with the person fined. Let the fine be, say, not less than 5*s.* nor more than 40*s.*, the higher sums to be imposed where the offence is repeated. . . . .

I remain, &c.

J. E. White, Esq. Herbert Brewster.

SUTTON.

This town, though with the appearance of only a village, has a population of nearly 8,000, a great part of whom are engaged in the manufacture of hosiery chiefly of the rougher kind. I have understood that where the work is of this quality, the labour being heavier and worse paid, the general condition of the people is usually lower and the hours of work more likely to be excessive.

George Cawthorne.

Has four frames here. Gives 2*s.* a week to a boy of 12 as winder; he comes at 8 and generally leaves by 7, but sometimes stays till 9. Should send him away then. Seven is a common age for beginning as winder, and a boy cannot do much then. They could not reach to wind younger than that.

Began to work in a frame at 12 years old. "If I "had a hundred children I would not put them into a "frame before 12;" not into the least and lightest frame. Would not on any account, "if I was ever so "poor; if I had only a sup of bread." If they begin too young it stops them from growing. It ruins them. Knows many that begin by 10. The frames have to be altered to suit them by raising the seats, &c. After two or three months they can do a full day's work. They have a "stint" (task) of so many pairs of stockings set for them to do. In about a year a boy could do a couple of dozen in a week, and would then perhaps get 1*d.* or 2*d.* given over for himself. Formerly, when there were apprentices, they were kept very close to work, and it made some hump-backed, knock-kneed, and so on.

The rooms in which the frames stand are many of them very small and close, and the confinement is very bad, and weakens you very much. Many rooms are worse than this (7 feet wide, nearly 18 long into the door recess, and 6 feet 4 inches high), and some narrower. Many are like it. Four, three, or five frames in a room is a common number. There are few rooms in Sutton with above five, barring odd ones which may have towards nine. His frame is 30 gauge, and 30 inches wide, which is wide. (The "frame" is fixed in a wider framework, which makes the whole considerably wider.)

Girls begin to seam at about 7 years old. They are no good till that age, but are useful then. There is no school to go to here without paying. At the National School it is 2*d.* or 3*d.* a week; at some 6*d.* But they learn nothing. They cannot afford to send their children.

Martha Cawthorne, wife of last witness.—Her eldest daughter began to seam at 6 years old. Some begin earlier, at about 5; but not to keep at it regularly. At about 8 they get useful. At that age they begin after breakfast, which they have at about 9, and work till 8 or 9 at night, but plenty as young as that work later, viz., till 9, 10, and 11. That is not so bad when trade is good. On Friday night many work till 12 and 1. Is sure they would at that age. They must finish the work.

A girl under 13 would not sit up past 1, but at 14 or 15 many sit up till 3 and 4, and even all night, the night before going in. There are different going-in days. Has many a time sat up herself all through the night. It is quite common. Believes that many in the town make it a regular practice to keep their children up in this way if they are old enough to help. If a child can do only a hose an hour it is a great help. This lassie (her daughter), who is 7, would just do that. Kept her up lately with herself seaming hose, but it made her (the child) bad for two or three days, and cost her (the mother) a shilling.

For seaming common hose the pay is 7*d.*, 6*d.*, 5*d.*, 4½*d.*, or 4*d.* a dozen pairs, according to size, &c., and the finer 10½*d.*, 11*d.*, or 16*d.* a dozen, but that is harder, and does not pay more really. This is not paid till the end of the week, and if the work is not finished in time the agent will not pay at all, so they must sit up, however late.

Some of the agents give tickets to go to shops instead of money, "what you call trucking," but that is not so much done as it used to be.

Mary Ann Cawthorne, age 18, daughter to last two witnesses.—Seaming is very hard work when it is fine, and she would sooner do coarse. The fine is very bad for the eyes, and makes them dim from having to stare at it so long. Has many a time sat at seaming all through the night. When she first did so "was not so "old as that" (14).

John Cawthorne, age 14, brother to last witness.—Has not been at frame long. Wound before that since he was 7.

Has been at Sunday school all his life, and at the Church week-day school from 4 years old to 6. Does not know "B" or "C" (A shown). "They call that "A at school." Does not know "3." Reads "2" as "nine."

At the Sunday school, the national, the man sets lads to teach you, some no bigger than yourself. These "Ax you to spell, and if you don't they hit you. "They never ax you more than once." Knows two or three Scripture names when mentioned, *e.g.*, Solomon, Joseph.

Matilda Wilkinson.

Has six children, the eldest 10. They have to begin work (seaming) "before they are able." They ought to be at school, but she cannot pay for it. There is no free school.

At about 7 years old they begin to be useful. Her eldest has always been nursing, and so has not done seaming a deal. Thinks there are not many begin before 6 years old.

Sometimes has no work at all for a week, and then some is wanted in a great hurry. That is because they are so put about for cotton now. Does six pairs of stockings for 3½*d.* the lot. They have to be seamed from top to bottom and on each side of the foot.

Oftener than not works till 1 a.m. when she has work, and has done till daylight, but "not so often," because she was not so much good the next day. Likes her children to work till 9 or 9½ p.m., not more. The eldest one or two may have worked after 10. Girls of 14 or 15 ought to be a-bed, but they generally work till 11 on Friday night. She does not know whether they go longer. Herself and her two girls here have to work hard to make 3*s.* in a week.

Elizabeth Ward.

Has worked at seaming all her life. Some begin at 6 years old, "before they have any business." Not earlier. By 7 or 8 they will be at it every night about till 10, and on Fridays later, but past midnight is not very common. It is "just accordingly." A girl of 10 or 11 is fit to work to 10 or 11, but some begin to do so younger. "Some have to be put to it so soon, it "seems a big shame." Some women work all night; many who have large families do so. It is seldom that a girl not grown up would sit at work all through the night. But girls of 15 or 16 do. Calls that making two days instead of one. There is most sitting up when trade is good, but it has been very bad and "unregular" lately. Most girls in the place are at the same work. Whether a girl of 12 sits up at work past 12 is "just accordingly."

Besides the seaming there is "pairing," &c., which they call "getting up."

There is a national school in the town, which is free to several.

The Hosiery Manufacture.

Nottingham District. Sutton.

Mr. J. E. White.

James Marrett.

Is a stockener. Began to work in a frame at 9 years old, but does not think that any begin before 10 now, and 11 or 12 is more common, and at that age they are strong enough for small frames, working at first only half a day, &c., *i.e.*, about 5 or 6 hours. That is enough. In two years they can work full time, and generally do, beginning at about 7 and leaving off at 8.

Some begin to be winders at 5 years old, but not many; it is according to the situation of the family. Many begin at from 6 to 9 years old; the eldest child usually has to begin the youngest. By 6 or 7 years old a child can wind for two frames, unless they are "toppers." If another set of bobbins is wanted to be wound the child must go on, but after about 8 o'clock (at night) they (parents) "take pity of them," and let them go to bed, and then wind for themselves instead. A child of 7 is seldom at work after 9 p.m., but is sometimes till 10. By 8 or 9 years old they begin to be later, and will wind till 10 o'clock. Seamers begin at about the same age as winders.

The work is so uncertain that it must be done when it comes. If they could get the stuff from the warehouse more regularly they would all have more time.

Mary Marrett, wife to last witness.—Children begin to be seamers when about 6, but get tired in two or three hours. By about 7 years of age they are useful. By about 12 years old their regular time is from 9 in the morning to 10 at night. At odd times they work till 12 or 12½. That is quite the common thing on Fridays, but it would not be after 1 once in a year at that age. Most of the young girls in the place seam and all at home, though some take their work to school.

James Marrett, aged 13, son to two preceding witnesses.—If there is plenty of work he winds for 8 or 9 hours, between about 8 or 9 in the morning and 9 or 10 at night, with breaks between. If the work is good, *i.e.*, winds easily, he can get beforehand with it; if it is bad he cannot. Has wound on Thursday and Friday nights after 12 many a time, and two or three times till 1. The general time in winter is till 10 or 11 at night. Sometimes gets up to work at 5 in the morning, or, in winter, at 6, on Saturday or Friday. Was three months at the national school. Goes now to Sunday school. Can read words of one syllable.

John Renshaw.

Works in a stocking frame here (in one of Mr. W. W. Hepworth's shops). Began to work in a "one topper" (stocking frame) at 10 years old, at home, his father working in the only other frame. Is now between 24 and 25. Began at 7 or 6 in the morning, never before 5, and used to give over at 9 or 9½ p.m. if he left off early. "Dare say I have gone till 11." Has worked till nearly 12 when "hard on," as on Friday. Would have stopped about a couple of hours during the day then. There is never much work done on Monday. That is the usual way of working, and he has worked in the same way always.

The fathers set their boys so many dozen pairs to do in a week. Used to have three dozen set him, and have for himself all that he did above that. Has done 3½ dozens or so in a week, and got 1*s.* for himself. Has pretty good sight. His is wide work, and does not hurt the eyes. Began to wind when he was 7, and wound for three frames; sometimes winding only half a day, at others till 4 or 5 p.m., but not often, though the frames might be going till 12. Some winders have to stay till 10 or 11 p.m.

Went to an infant school a bit, but "not a deal" to Sunday school. Says he does not know his letters, but (the word "let" being shown says) "l-e-t;—isn't it?" Cannot sound it. Does not know "2" or "1" in large print. "Am sorry to say, but I can't. Am very bad "at it." Has heard people read out of the newspapers, but has not heard of the Queen's name. "Have heard "that name" (Victoria), but cannot say whether it is her name. Has heard people reading of France, but does not know what it is, or whether it is the name of a place. Has been "very little" to church or chapel to hear people pray or preach. (Is asked how the world was made.) "Have not heard about that." Does not know who made it. Has not heard of Adam "a deal."

[This man, though stunted in body, did not look naturally dull in mind. As his master and fellow workmen were by I forbore to test his knowledge further.]

Joseph Simms.

Began in a frame at 11 years old, and before that wound for two years. After being at the frame for six months used to sit at it for 12 or 13 hours in a day. "You have to work about 15 or 16 hours,—a stockener has." At first it made him ache, his wrists chiefly and across his body below the stomach. Is not short sighted. Working at home he could make about 1*s.* 6*d.* or 2*s.* a week up to 18 or 19 years old, when he left home.

Went to week-day school before he began winding. "Was just about as forward when I came away as when I went." Knew his letters then, and not much more now. Cannot put them together, or spell a word by sound; not "horse" or "hat." Can "c-a-t;" "that "is about the outside." Is 21 now. Never was at a church or chapel since he worked in a frame. Does not know what people hear or preach about there. "I should say He (Christ) done a many kind things;" but does not know what people did to Him, or whether they killed Him. They did put Him on a cross.

Samuel Heath, age 11.

Has been a winder since he was 6, beginning at home, where he also seamed for a year. Is going to begin in a frame in a few weeks. Many begin at the same age. Comes to wind at 7, sometimes at 6; never stays after 7 or 8 p.m.

Went to week-day school for a year when 3 years old. Goes now on Sundays, and to chapel. Can read (spelling nearly every word). Tried writing a little. (His father says he can write better than he can read.) Cannot read "25." Does not know what they told him about at chapel.

[This boy is very dull and answers with difficulty.]

Samuel Heath, age 7.—Has wound for two years, and has been to school between whiles also. Can wind for two or three or four frames.

[The father of these two boys, who was working in his frame in a very small room, was extremely haggard.]

469

The Hosiery Manufacture.

Nottingham District. Sutton.

Mr. J. E. White

Francis Spencer.

Has four frames, worked by himself, two sons, and a man. Some want more power than others to work them. One of his sons, aged 24, has been in a frame for 14 years ; the other, aged 16, for 5. The age of beginning depends upon the circumstances of the family. Some are obliged to begin very early, but it is "scandalous" that they should. His daughter, grown up, does the winding, and the seaming is given to women. Two footing frames want four women to seam for them. A child could not wind at all, because he could not manage the thread. His daughter can do their winding in six hours, but some could not wind his stuff even in a day. A day of 12 hours is plenty to work in a frame, but he often does a many more himself. His average this week has been 18 hours a day, and he always reckons for 16.

Thomas Cassidy, son to last witness.—Began working in a "one topper" frame, 16 inches wide, at 10 years old. Had to have a stool to stand on to reach up to "narrow" (by hooking off and dropping stitches), and had the treadles and foot piece raised. At first worked for two or three hours and got tired, most in the wrist and across the thighs. Was nearly a year before he worked for a whole day, and then worked about 10 hours. Would not pass 12 hours, *i.e.*, not counting meal times, till he was 17 or 18. Wanted a good deal of help when he first began, but in a year could do it quite by himself.

Began to wind at 6 years old ("sooner than he had any business," says the father).

Went to week-day school till then, and to Sunday school till he was 16, and has been to a night school. Can read. (Blunders, *e.g.*, reads "about" as "by.") The flood was when the earth was drowned.

John Hepworth.

Has five frames for making girls' hose, of either cotton or wool, coarse work, the frames being 30 gauge. Men work the frames, four making one stocking in separate parts ; his son, aged 11, winds, and his little girl, aged 13, "turns off," *i.e.*, joins parts of the hose with a small frame and hook. These frames in full work employ five women at seaming. The women have their own girls to work with them, but no others.

The length of the day is according to the work. The average for men is about 12 hours. They generally lie by in the early part of the week and make it up at the end, beginning in winter at 6 in the morning, but seldom earlier, and in summer at 4 or 5, working then till 8 or 9 at night. They could not hold out longer then, but in winter their regular time for leaving off is 9 or 10 p.m., sometimes they work till 11 or 12, and when they are "throng" an odd man will work for an order till 1 ; but the winding is generally done by 9 or 10, and, if the men are going to begin very early, enough winding for them to go on with is done the night before. His boy begins at 7 or 8 in the morning and leaves off towards 9 at night ; but if he has been "linty" (lazy) he has to work later. The boy has not stayed till 10 for the last two or three weeks. The men would not work till 1 quite 20 times in the year now as trade is bad.

Boys begin winding when about 7 ; but even if strong and healthy are not fit for regular work in frames till about 14. Some begin before they are 12, but till about that age their legs and arms are not long enough to reach a common frame well.

His boy (who is out) can read easy verses in the Bible without spelling, but is not clever at it, and has been a little at a night school, and can write a little with slate and pencil, but "not to call writing," and cannot sum.

Samuel Radford.

Has three 30-gauge frames, all for stockings ; one worked by a boy of 14, who has been at it half a year. Keeps one winder, an orphan, aged 12, who lives with him. The day is as long as is necessary for the work. "They can work all night if they like." It is generally from about 6 or 7 in the morning till 9 or 10 or 11 at night. Sometimes one part of the work is not ready for the other parts, and this causes delay. It happens sometimes in this trade that men go on till 3 or 4 in the morning. When they are late they keep the winder till 9 or 10 or 11 at night, just as they want him.

His winder (not now in) goes to Sunday school, but can hardly tell the letters. Could spell words which he knew, but not a new word.

Witness is a teacher and treasurer at the Primitive Methodist Sunday school, where there are about 150 boys and girls. At the church school there are more than 100, and at four other schools about 300 or 350, making towards 600 in all. At his school they are taken in at about 4, and stay till about 15 or 16. They come pretty regularly, because there is a system to encourage this. Prizes are given for regular attendance and punctuality. Perhaps half a dozen or a dozen may come in late on a Sunday out of the 150, for whom there are 25 teachers ; about 40 or 50 perhaps can read. That is probably much the same proportion as in the other schools in the place.

Mr. William Wills Hepworth.

I am a hosier (middleman) here, employing about 80 or 90 frames, sometimes more, which I let out or let standing room for. Many men here have worked hard when young, as I did, and saved money and bought a frame or a few frames of their own. In a time of good trade a quick man working regularly at a frame from about 7 a.m. till 9 or 10 p.m. can make 25*s.* a week, even at coarse work ; one that I had could make 30*s.* Another man at the same work might not be able to make more than 8*s.* or 10*s.* ; but the regular practice with stockeners is not to begin much before Tuesday, some not till later, and to work hard at the end of the week. Some beginning even on Wednesday can do a fair week's work. Stockeners are very independent, and when trade is good are often striking. There are about 1,700 or 1,800 frames in Sutton, nearly all making stockings and socks, a few woollen articles, such as falls for ladies and neckties, and also lace hose being made on some of them. Of the whole number of frames I should say that about 300 are worked by persons of from 11 or 12 up to 18 years old. If they begin early they should not be kept close at work, as a full day is too much for anyone not as much as 17 or 18 years of age. The work does not hurt the eyes, if plain, but if dark or coloured it does, and some of the men say it makes them nearly blind.

There are not many in the place who employ winders not of their own family, perhaps not more than 10. A winder is paid 3*d.* for a score of slips (skeins). Girls do not go out to work.

The employment is much the same in all the neighbouring towns and villages for 10 or 15 miles round. There are a good many stockeners in Mansfield, though not so many as in Sutton.

The Hosiery Manufacture.

Nottingham District. Sutton.

Mr. J. E. White.

Mr. Samuel Oscroft.

Has been in the hosiery trade over 40 years. Began to work in a frame as an apprentice at 10 years old, and in nine months could make wrought stockings. Served his 7 years. At that time it was the general practice to make legal apprentices. In that one block of buildings there were 100. Had two grandsons begin in a frame at 8 years old. Some begin at 10, most at 12. Children cannot begin so early now as they could, because they are much poorer and not so well fed. The Sutton stockeners are a powerful heavy set of men; the Nottingham are small and light. This is owing to their different way of life, the Sutton men getting a share of out-door exercise and active amusements, the Nottingham men spending their time in-doors.

Mr. Charles Aked.

Is a hosier (middleman) here. The common day's work at frames here is in winter from about 8 a.m. to 9 or 10 p.m., and in summer from 6 to 8. On Monday and Tuesday not much is done, except fetching out the work, nor is there much done after 11 or 12 on Saturday morning, *i.e.*, after the week's work is finished and given in.

Boys generally begin to wind at home at about 7 years old, the youngest at 6, but do not go out much till about 9. Four frames is a common number in a shop, because a common kind of stocking is made in four parts, each part on a separate frame. A boy of 10 could wind enough for these in about six hours and go to school for half a day. If the frames only make "tops" (of stockings) more winding is wanted. The average age for a boy to begin in a frame is about 12. Many begin at about 10, but they are the exceptions. They are taught at home usually as soon as their chest is broad enough to enable them to reach the work, rather than at any given age. Girls begin seaming rough work when about 7, but work only at home.

Besides hose the frames make falls, shawls, and fancy neck-ties.

James Woolley, age 11.

Winds at home for four frames. Began winding for three when 6 years old. Could get three-score slips (skeins) done by dinner time, beginning at 7 in the morning. Now when in full work winds five score in a day, which takes from about 7 in the morning to 8 at night. Never winds beyond 8. Stops half an hour for dinner and breakfasts before he begins work. Does not want to work in a frame, because he could not always get anything to do.

Was at the national school for three years, and goes on Sunday now. Can read and write easily, and went "near to" rule of three in sums.

Derbyshire Belper.

BELPER.

There are two large hosiery manufactories in Belper, which also give employment to a very large number of hands outside, but very few under the age of 18 are ever employed in the warehouse department at either. Standing at the edge of a small country town they are not confined in space, and the work rooms are large in proportion to the number of persons employed in them.

MESSRS. WARD, STURT, AND SHARP'S HOSIERY WAREHOUSE, BELPER.

Mr. Sandford Pratt.—Represents the firm here. The manufacture embraces hosiery and gloves (knitted) of every kind. In a busy time there are never more than from 8 to 12 of either sex in the warehouse under the age of 18, and these seldom under the age of 12 or 13. There are three a little under 13 now, and three a little over. They come to learn the work, viz., turning hose, mending, reading the marks of the different qualities of goods, folding them, &c. Does not care to have any under 13. The full number is about 70 females and 30 men, but the hands are probably older here than in large towns. The usual hours are from 8 till 6½, with an hour for dinner at 1. It is contrary to rule to have this in the work rooms, and there is no occasion for it. If they stay till 7 or later, there is half an hour for tea. In a time of fair trade they are busy for two or three months, or sometimes for not near so much. Then they may stay till 8 or 9, or perhaps till 10 p.m., but as a rule the younger leave earlier. Whether any girls under 16 or 17 were required late would depend upon the branch of the work in which they are engaged.

Would find inconvenience sometimes if the hours of young persons were limited, but only in case of shipping orders, and that very rarely. It might not be half a dozen times in a year, and is scarcely worth thinking of.

The hours used to be from 6 to 7, but the present shorter hours have not diminished the amount of work done, or but very little.

Cannot say whether more work on the whole is done inside or outside the factories now. More in value is done out. It is not likely that all will ever be done in, though it may be possible to do the work by machinery. Great and unexpected improvements in machinery have been, and still continue to be, made.

Hosiery is made in country places as far north as Chesterfield.

Mary Ellen Bennett, age 12.—"Turns" hose. Here 4 months. Works from 8 till 6½, not later. An hour for dinner at 1. No tea. Gets 1*s.* 6*d.* a week.

Was at a week-day school till here ever since "a little one." Can read (spells one syllable words). Writes in a copy book. Did sums, but forgets what they were called. Goes to Sunday school now.

Thomas Peach, age 13.—Turns hose. A year here. Has stayed later than 6½ at night only once. That was till 10½ for an order, and a girl of 11 stayed also. Two years at week-day school.

MESSRS. GEORGE BRETTLE AND CO.'S HOSIERY WAREHOUSE, BELPER.

Sarah Wigley, age 11.—Here 3 weeks. "Belts," *i.e.*, cuts off bits to make shirt bands, and ties strings. Hours are 8 till 7, with an hour for dinner at 1, for which she goes home.

Was at a week-day school for several years till she came here. Can read (reads easily newspaper, small print, and long words). Can write in a copy book, and do "pounds, shillings, and pence," subtraction, and multiplication (writes down from sound "350"). Goes to Sunday school now.

Susannah Salt, age 17.—Here 2 years. Was at service before. Is a "folder," *i.e.*, folds hose and puts them in dozens. Hours are from 8 till 7. Overtime is till 8 or 8½, but it does not come often, perhaps a dozen times in her two years. Goes home to dinner for an hour, but some have it in the dinner house, and all have tea there at 5; half an hour allowed.

Can read and write, but almost forgets how to do sums.

Emma Kershaw, age 14.—Here 5 years. Works a

stitching machine (by treadle). Is sometimes years without any overtime, and never has it for more than one night together, and then has not been later than 8.

Was at week-day school till here, and goes to Sunday school now, and to evening school each winter. Has written a letter to her brother in Russia; could write French a little, and can read it. Lived in France.

Sarah Ann Burton, age 12.—Here 4 years. At week-day school till then. At first turned hose; now "belts." Has only worked over time two or three times in a year; then till 8 or 9.

James Tomlinson.—Is in the mending room. Of the 11 menders now in here, all females, only 3 are under 18, but most of them began at 12 or under, having been at "belting" before.

Mr. John Kennedy.—Is clerk here. The numbers now employed here are smaller than in an ordinary state of trade. In the silk department, instead of the full number of 24 there are now only 9. The menders get from 6*s.* to 7*s.* a week, the younger after a year or two doing as much as the elder. Afterwards they may become "examiners," *i.e.*, look over the goods to see if there are defects. It is difficult to be a good folder, because a folder has to select articles of different make by their marks and sort them. There is only one folder not grown up. There are always plenty of applicants, so that the employers are particular whom they take, and only those known to be respectable are taken. With the exception of one girl, who is naturally rather deficient, all can read and write.

The Hosiery Manufacture.

Derbyshire. Belper.

Mr. J. E. White.

None of the best goods are made in steam factories, though fashioning can to some extent be done by machinery, and improvements are being constantly made. No doubt in time all will be made by machinery, but not for many years. The value of existing hand frames and the cost of new steam machinery are both considerable. A hand frame of fine gauge would cost from 20*l.* to 30*l.* new, one of a low gauge perhaps 6*l.* or 8*l.* A machine such as used in a factory, if large, would cost towards 200*l.*; others from 100*l.* upwards. The frames worked in the country are usually owned by the manufacturers, who let them either direct to the workmen, or, as is more usually the case, to bagmen, who underlet them again. The manufacturer does not usually take rent from frames not at work. The seaming is done by the wives, daughters, and neighbours of the workmen.

There is very little hosiery at Derby now.

LOUGHBOROUGH.

Leicestershire. Loughborough.

MESSRS. CARTWRIGHT, WARNERS, AND CO.'S HOSIERY WAREHOUSE, NORTH STREET, LOUGHBOROUGH.

This factory and warehouse stand in a clear space at a little distance from the town, and on account of the distance a longer time is allowed for going to meals and returning.

Mr. Henry Warner.—Our warehouse hours are already less than the factory hours, and the business very uniform through the year; the only overtime ever required being for a shipping order, or something of that kind. A limitation therefore of the hours of work of the young not beyond the factory limits would leave time for all the work wanted.

The people, however, who now come in the morning in winter at 9, would not like to come at 8 or earlier so well, and a Saturday half holiday for those under 18 would be very inconvenient. The young work with the adults, and cannot leave earlier than they without throwing the work out. The goods made out of the factory, which are a large portion of the whole, are now "taken in" to the warehouse on Friday and Saturday, and work remains to be done to them on Saturdays afterwards, which a half holiday on that day would prevent. To throw the "taking in" days earlier in the week would interrupt the established routine of the work,—would cause difficulties with some of the people who now bring in work,—and would also require a change in the arrangements with the bleachers, to whom the goods have to be sent, as well as in the warehouse. Any change of a system involves inconveniences, and some which are not foreseen, and requires fresh arrangements. The points named are the only ones in which a regulation of the labour of the young in the warehouse would make much difference.

The goods are not seamed in the factory, but given out for the purpose and brought back made. The employment in the warehouse consists chiefly in sewing with machines, worked by treadle, or with the needle, as in mending and making up, *i.e.*, sewing on bands, buttons, &c., and also in marking, sorting, and folding goods.

Goods in which there is much fashion are principally made on hand frames. They could not be made by power without machinery so complicated, and then, owing to the small size of each article, in such small quantities at a time, that it would scarcely be worth while to make them by power even if it could be done. But the needles are so delicate, more so even than any parts of a lace machine, that it will be extremely difficult to make such goods by power alone, and it will be a long time before it can be done. Much may perhaps be done by a combination of power and hand, and improvements in machinery are gradually being made, but there is no question that a large amount of work will always be made out of factories by hand.

To do all the work in factories would require a great extension of buildings and machinery, and render worthless the frames already provided in the houses. These in some neighbourhoods are owned chiefly by the manufacturer, in other cases by the "frame-smith" (maker); in some cases the workmen buy a few if they have saved any money. The repairs are paid for by the owner, and rent is seldom taken for a frame by a manufacturer if he does not give out work for it. But if the owner be not a manufacturer, the rent is probably paid as in ordinary tenancies.

Besides the men, women often work in frames in the intervals of their household work, paying a rent of 9*d.* a week for a frame, and earning 3*s.* or 4*s.* after paying the rent; and the man's children also work in frames at about the same rent. They begin at the age of 10, 11, or 12, but the amount they can earn all depends upon their quickness. I know a case where a boy, after being at a frame for twelve months, could earn more than his father at the same kind of work.

There are but few villages in the neighbourhood of Loughborough in which the hosiery manufacture is not carried on, and this is principally of cotton goods.

Sarah Keed, age 14.—Is a mender, and also goes errands and sweeps up. Has been here only half a year, but can do the work well enough. There are only two others of the menders not grown up, and they do the same work. The hours are from 7½ a.m. to 6 p.m. in summer, and from 9 a.m. to 8 p.m. in winter, not later, unless for a few minutes. Dinner is from 1 to 2.15, and tea from 5 to 5.40; goes home to these herself, but some have them in the lobby. One of them takes it in turns to wait in the room at dinner time to keep watch, and has dinner afterwards, and always has her full time. Gets 2*s.* 6*d.* a week.

Was at school for 5 or 6 years till she came here, and goes on Sundays now, but not to any night school. Can read anything, write copies, and do addition, subtraction, and multiplication.

Mary Winterbottom, age 13.—Works in the making-up room, and makes "bands." Has the same hours as the menders. Here 3 years; has never stayed after 8 p.m. in all that time.

Last winter in order to get time for going to night school she was allowed to make it up at the dinner

The Hosiery Manufacture.

Leicestershire. Loughborough.

Mr. J. E. White.

hour by dining at 5 minutes to 2, and finishing dinner in five minutes. Some other girls did the same. Went to night school in summer also, but does not this winter. Can read, write, and sum, viz., multiplication and subtraction, nothing else; not division.

Mrs. Jane Wood.—Is overlooker in the mending-room. The amount of work is much the same through the year. The only two menders besides Mary Winterbottom who are not grown up, can read and write nicely. Knows this because she is a teacher at a school where they go. Has lived in this town all her life (she is an elderly person) and never heard of women taking in children to work for them at seaming, &c. All the seaming from the town factories is done in the town. The two or three young menders are employed chiefly for the sake of going errands, sweeping up, &c.

Eliza Seal.—Is overlooker in the making-up room, and has under her now 27 females, 9 of them under 18, and two of these under 13. Usually takes them at about 12 years old. In good trade has about 40 or 50 altogether under her. Believes the young ones all go to schools.

Mary Elizabeth Sherrington, age 14.—Is a maker-up. Goes to night school in summer. They leave work at 6 then, but now at 8.

Mr. George Wheeldon.—Is in the office. The employment is the same as here in most hosiery warehouses, principally mending and making up. There are five hosiery warehouses in this town. What making up is not done in the room here by the machines is given out and done by women and their children.

There were formerly a few women who "drove a "team" of girls like the lace mistresses, for seaming, but are none now.

MESSRS. T. AND W. E. WHITE'S HOSIERY WAREHOUSE, BEEHIVE LANE, LOUGHBOROUGH.

Harriet Mayne, age 16.—Seams. Here 3 years, and at another warehouse before for a year as a mender.

Before that was at school, where she used to do seaming, writing, and arithmetic. Knew reading and sewing before she went to school.

The hours here are from 7½ a.m. to 6 p.m., later only at odd times; never stayed beyond 8. There is an hour for dinner, for which all go to their homes. Goes to a night school both in summer and winter once a week.

Mr. William Hanford.—Is foreman here. The business which is general, including plain and fancy hosiery, both woollen and cotton, is pretty even throughout the year, though about September and October they are rather busier, and from January to March slacker. The warehouse work is chiefly mending, sorting, and folding. The mending is to repair the damage done in the "trimming," *i.e.*, bleaching, dyeing, &c., which is called "finishing."

Children are never employed in this warehouse as they are of no use.

About a year and a half ago the Saturday half holiday was begun at this warehouse, but it is not given at any other in the town (about 5 or 6). Quite as much work is done since the change, and better, and the people come fresher on Monday. Formerly Saturday was the busiest afternoon of all, Saturday being then "taking-in day," *i.e.*, the day for taking in the best fashioned goods made elsewhere on frames. This interfered with Sunday, the people being tired, and of course there could be no half holiday then, but the taking-in was changed to Thursday and Friday, and Saturday given to general business. This does not in the least interfere with the general arrangement of the business, and all like it.

MESSRS. W. AND A. PAGET'S, HOSIERY MANUFACTURERS, MILL STREET, LOUGHBOROUGH.

At the time of my visit to these premises the business was temporarily interrupted, and neither the mode nor the place of carrying on the work usually performed in warehouses settled, though a large room adjoining the factory was pointed out to me as likely to be used for the purpose. It is one of the principal manufactories in the town.

Mr. Arthur Paget.—Regulations as to the labour of the young in factories are good and work well; but in warehouses they are not needed, and would be inconvenient. Warehouse employment is of an entirely different kind. There is no working against steam and so no strain on the strength or attention as in factories; but at the same time the warehouse work cannot be carried on so uniformly as the making, and consequently a greater latitude of hours is required.

If legislation were applied to warehouses, private houses in the neighbourhood would be used for the work. There are many places now in this town and neighbourhood where seaming, &c. is done by women who employ at it small numbers of children very young, and for very long hours. Some of the work formerly done in our factory here, as seaming, &c. is likely to be removed from there and done in a warehouse just to avoid some of the inconveniences found to arise from having it done in a factory on account of certificates, &c.

Legislation on employments of the warehouse kind is in my opinion never likely to take effect. There is, however, no fear that the young will ever be subjected to overwork in warehouses, as self interest makes it plain to the employer that children under the age of 13 cannot work above 8 hours a day, young persons more than 10, or even adult men more than 12, with advantage.

[As already remarked children are now scarcely ever employed under mistresses as here referred to.]

Sheepshed.

SHEEPSHED.

The inhabitants of this place, a large village a few miles from Loughborough, are principally dependent upon the domestic manufacture of hosiery and are now in a very depressed state.

Mr. Edward Beer.

I am overseer of this parish. The population is about 3,700, of whom about two-thirds are engaged in the hosiery manufacture. There were about 1,200 frames, but now probably there are not more than 800, but of these there are more wide frames than formerly, making 2, or 3, or 4, or 5 stockings or two shirts at once. There are a number of frame shops, of which one has, perhaps, 40 frames, 7 or 8 perhaps a dozen, and many 5, 6, or 4. The rest are in houses, 1, 2, 3, or 4 in a house. A house is often built for 4, which is the number that will just go into the side of a small room (about 12 feet). The frames generally belong to the manufacturers and are rented from them.

Several women work in frames in houses as well as men, and some earn nearly as much as the men. Boys begin frames generally at about the age of 12, but some at 10. I know a youth who of 16 who gets 17*s.* or 18*s.* a week, but that is quite an exception. Girls begin

frames at about the same age as boys, or a little older. They can work narrow frames, but not wide; and therefore there are fewer women and girls working frames now than formerly. Wide frames are coming more into use, as they can make more work and nearly as good as the wrought, and as the goods made on them can be sold cheaper they are displacing the narrow work. Boys are not big enough for a wide frame till 16 or 17. They generally do the "footing," or making the feet, for which the frames are small. A boy is not kept to wind unless there be about 5 or 6 frames.

There are no regular hours of work. In the largest shop the work stops at 10 at night, and goes on regularly. Men working for themselves at home often idle in the first part of the week, and work hard on Thursday and Friday, often all through Friday night. It would be much better if they had factory times. It is not general, I think, for winder boys to be kept at winding past proper hours, *i.e.*, past 9 or 10 at night. Spare bobbins are kept, and these can be wound beforehand, though where the work is coarse more winding is wanted, and boys may be kept later. When boys are put to a frame they have a set of so many given to them to finish in the week.

The seaming is done chiefly in the men's own families, and also when trade is good a good deal of cut-up work comes out from Nottingham and other places to be stitched. Women and girls will often sit up all night before "going-in day" which is generally Saturday. That is when the men are dilatory in the early part of the week. It is not all that are so. But this irregularity of work is found in all trades when work is done by piece-work in men's own houses, and the men are their own masters. There is no doubt of this.

There is no particular age at which children begin to sit up late. It is as soon as they begin to be useful. A kind mother may send them to bed if they are sleepy, but all depends upon the mother. Plenty of children begin the work at 6 years old and some at 4. This work is of the same kind in most villages for some miles round.

Maria Beer, age 13.—Is daughter of last witness. Knows that some little girls sit up quite late to work. At about 11 or 12 years old they sit up till 12 o'clock but not much younger than that, she thinks.

George Kirby.

Has 8 frames in this (the living) room, and in good trade all are at work. The common age to begin working in a frame is 11 or 12, but he has known boys and girls too put in at 9. If put in early they do not learn so well, and it prevents their growing up strong. "Some never make a man." They dwindle away, and are weakly. This is partly from being so confined in close air, but the work itself takes strength. There is a good weight to work, and it tires some, *i.e.*, in their hands.

A great many girls and women work in frames. His two daughters there began at about 13 or 14. Knows one young woman who was put in at 9 years old, and used to work on all through the day. But she has grown up well, and has a family of children. Some it does affect and some it does not.

Seaming is bad for the eyes; worse than the frame, which is bad. Could work a 48-gauge frame once (very fine work), but now cannot see a 24-gauge (much coarser), and "never shall no more." One of his eyes had been hurt in another way. Some work hurts the eyes a good deal. Women and girls work late at seaming. Could mention several who sit up odd nights.

Went to a free school himself as a boy for two years. Knew no alphabet when he went and none when he came away.

Sarah Kirby, wife of last witness.—One woman can seam for two frames, but it is too much for her.

Girls begin to be useful at seaming by 7 years old. Her two daughters began, one at 6 years old, one at $5\frac{1}{2}$. By 8 years old they can do half as much as a woman. On Thursday and Friday some girls will sit working till 10, 11, and 12 at night. Was up herself last Friday till 4 in the morning. It is not at all uncommon for women to sit up all through the night, and even girls of 11 and 12 do so, "but, sir, it ruins the constitution." (Question. Do girls younger than that ever sit through the night?) "I do really believe there is." Means, sit up to the morning, up to daylight, and perhaps never go to bed at all till next night. Has known some (*i.e.*, of the younger girls) do so. Has known girls of 8 and 9 sit at work till 2 and 3 in the morning.

Seaming some sort of work, *i.e.*, the black and the fine, is very distressing to the eyes. Those who do much dark or fine work get short-sighted. Believes her girl there would have to wear glasses. Witness used to run lace formerly, both black and white blond, and thinks that the seaming is nearly as bad as the lace running was.

But few children go to school, even in the early part of the week. Lets her own go sometimes for part of a day. There are no free schools, but the minister lets a few children go free. A great many cannot read or write. Knows a young man here who does not know his alphabet.

Chares Kirby, age 20, son to two last witnesses.—Went out as a winder boy when about 9 or 10, and wound for five or six frames. Used to go at 6 every morning, except Monday, and sometimes was fetched at 5. Used to stay most nights till 11 and 10, and most Friday nights till 12 and 1. Once father came and fetched him home towards 2, and said that he should go no more.

Took an hour for dinner, and half an hour each for breakfast and tea; but when busy he had his victuals sent to him and ate them as he could without going out of the shop. That is a common thing.

Tom Kirby, age 12, brother of last witness.—Went out when 9 to wind for four or five frames. At the end of the week he was wanted by 6 or $6\frac{1}{2}$ in the morning, and stayed till 11 at night.

Can read, write, and sum, but could do so much better once. 11 times 11 is 110.

John Griffin.

Works in a frame. Has had nothing to do for several weeks, and has five children.

Some boys go out as winders at just about 6 years old. They begin at 7 or 8 in the morning, and work till 8 at night; not later when they are so young.

Some boys are put into a frame at 10 years old, some before. Eleven is quite soon enough, and they will never thrive if put in before that age; they are "never "seen to do no good" then. Is sure that they should not properly begin before 13. Even if they are strong boys that is quite soon enough.

It hurts the eyes very badly to begin soon, and weakens them so that many take to glasses young. Has seen little girls of 11 and 12 with them. In warm weather you see girls sitting outside their doors working in glasses. Knows one girl of 11 who has begun glasses for 2 or 3 years. Believes this is from beginning to seam so soon. Sees none with glasses who did not seam early. (Names several who wear glasses.) Besides, working so hard so early is bad other ways: "It like stops them from growing."

Sarah Griffin, age 13.—Began seaming at about 9 years old. Never seamed all through the night. (The father, last witness, says that he "holds that no good.") Has sat to about 12 at night.

The Hosiery Manufacture.

Leicestershire. Sheepshed.

Mr. J. E. White.

Joseph Onion, age 13.

Has "wun" for 3 years, and at times for as many as six frames. Has gone at 9 or 8 or 6 in the morning. Has stayed till 9 at night, but hardly ever later. Can read a little. (Spells "table" from sound.)

Charlotte Onion, age 18.—Has sat up through the night seaming; not when very young; not more than twice.

Elizabeth Mabe, age 11.

Works at seaming. Began when 5 years old. Never worked so late as 12 at night. Goes to Sunday school. Can read a little (words of two or three letters only).

Mary Ann Mabe, age 14.—Began seaming when "4 years old and 10 months."

Sarah Mabe.—Began to seam at 5½ years old. Is 19 now, and the eldest of nine children. "Dare say I "was 6 before I began" to sit up at it to 12. Had not to sit quite so long at first. Sat through the night by about 8 or 9 years old, and her other sisters did so as early. "You're obliged to where there's such a "many." Other children begin as early. "My sisters "have done," and have worked in the same way; one turned 14 is learning a frame.

Witness began a frame at 10 years old, and in about a fortnight was able to make hose. Works in a frame at her grandfather's, making feet for the legs made by him and by two others. Before she was 12 has sat up at the frame all through the night, up till daylight, and then till dark again without sleep. You are forced to sit to do as much as you can as soon as you know how to do it. After sitting all night she can go on next day, but not so well. "It's very hard "work, sir, but there's a many has to do it." There is no time to go to bed till Saturday night, because they have to clean and get ready for Sunday. Sits up on "finishing nights" only. They may be any night in the week, according to whom you work for, but she has never sat up the whole night more than once in a week. This is the general way of work through the place, for those who can get it. Goes to a Sunday school when she can be spared; and can get on in the Bible without spelling unless the words are very hard.

Ann Mabe.—The account given by her children (last three witnesses) is quite right. Mary Ann learned seaming of her own will at 4 years and 10 months old) out of pity for her sister next older than she, who had her eyes bad from the measles, and it was to save her. Mary Ann could seam nicely before she was 5. Elizabeth began when she was not a deal turned 5. In the course of a fortnight she could go through it without any bother, and was quite useful. Had not enough work to reckon how much Mary Ann could earn in a week then. It might be 6*d.* She had to help the rest, and would sit till 11 p.m.; not so late as the others. Thinks that Mary Ann has not sat up all night. (Sarah interrupts her: "You cannot say that, mother; she has "sat up all night, I am sure. At any rate if she has "not, she has had no sleep.")

Little girls used to go out to nurse very young, *i.e.*, when about 8 or 7, some younger, being paid according to height and age, some 9*d.* or 1*s.* a week; the youngest perhaps 6*d.* If a bigger girl can seam too she may get 1*s.* 6*d.* or 2*s.*; if she be little and seam too she may get 1*s.* or towards 1*s.* 6*d.*, but she must be a rare strong girl for that. Knows a girl of 14 who goes to nurse two or three children for 8*d.* a week. (Their food is not found.) One of her own little girls went out once as nurse for a fortnight. They set her "so much" seaming (*i.e.*, a fixed quantity) and kept her till she did it, *i.e.*, till turned 11 p.m., and would have kept her later if it had not been done. In better times when people can afford a nurse, "a many go out as soon as "they can cotch up a child in their arms."

Mary Rogers.

Has eight children, six girls and two boys, the eldest 14, the youngest an infant. The age at which girls begin seaming is just according as people are circumstanced. The common age is 5. Those parents who can afford it keep their children from it longer. A girl of 5 after two or three months could earn 1*d.* or 2*d.* Her little girl (Mary, age 7,) could get 6*d.* or 9*d.* in a week, seaming all day. "We have kep her at it till 10. Sometimes she has a bit of sleep, and I have to wake her." Hears tell of people pinning their children to their knee to keep them up, and to keep them from going away from their work. "I never pinned my own." Dares say that some girls begin to work on till 12 p.m. before they are 8 years old.

Harriet Rogers, age 10, daughter to last witness.—Began seaming at 5 years old. Has sat till 12 on finishing night.

[The mother says "when she was turned 8 we began to keèp her up."]

Mary Rogers, age 7.—Began seaming when going 6. Has sat till 11 often on finishing nights. May have two or three finishing nights in the week.

[This statement is taken chiefly from the mother's mouth.]

Elizabeth Rogers, age 14.—Began seaming at 4 years old; left school for it. Afterwards used to begin at 8 and 7 in the morning, and in summer at 6. Her common time for leaving off at night was 10 or 9, and on Friday 12 and 2. Has worked till 2 when 8 years old. After finishing the seaming she had to get supper and take the work the same night to the "bagman," and bring back fresh work. If they waited till morning to fetch it some one might get the start of them and get the work first. Either a child or mother or father will take the work to the bagmen, as it happens. Always stopped an hour for dinner, and a bit for breakfast and tea, not always as much as a quarter of an hour.

Hannah Charlesworth.

Began seaming before she was 7; is now 21. One of her sisters began at the same age, and the youngest when just about 6. Has had to seam all through the night "scores and scores" of time. Began to do so almost as soon as she had begun to work, and her sisters did the same, except the youngest.

Clara Charlesworth.—Worked at the same age and for the same hours as her sister (last witness). Is now 20. Always sat at work through the Friday night. Began to do so in less than a year after she began to work. Began work before she was 7.

Sarah Charlesworth.—I am sure my children (of whom the two last witnesses are two) have sat through the night scores and scores of times, and almost as soon as they began work. When they began they went straight on. I am sure this is quite common all through the place for those who want work, and others will tell you the same if they would speak the truth. I know

a family just by (names it) where children of the same age as mine worked for the same hours. My girls had always a spirit to work and a spirit to dress. The account which they have given of their work is entirely true.

[This was a well dressed family living in a comfortable house. The appearance of the two daughters whom I saw showed no particular traces of their excessive early work. The family referred to by the mother, which I afterwards visited, seem unwilling to give information as to their former employment, the mother objecting to her daughter being "put down as a seamer."]

Mary Underwood, age 10.

Has seamed for four years. Was up at work till 12½ last Friday night. Has worked till 2½, and after that been up doing jobs till 3 and 4, at which time her father is getting up again. Begins usually at 8 or 9 in the morning, and in summer at 6 and 5. Stops "the value of an hour" at dinner time, but not much at other times. Takes her work to school with her; all the girls do. Can read. (Spells words of two syllables.)

[This girl was pale and heavy, and it was difficult to get an answer from her.]

Mary Underwood.—Her child (last witness) became useful in two or three months. A great quantity begin work at 5 years old, and many before 5, "as soon as ever they can thread a needle." They learn first to thread their mother's needle, and as soon as they can do that they are put to work themselves. Began seaming herself when 5½, having first learned to thread the needle; it is very hard for the eyes. When about 16 she sat up through Friday night regularly. Began to work in a frame very young. Little girls get "a very trifle" for themselves for their work.

Sarah Underwood, age 8, daughter to last witness.—Began seaming at 7 years old. Sits at it till 9 and 10 at night.

[The mother says there are others of this child's age who do more than she.]

Ann Ing.

Began seaming at 5 years old. Soon afterwards, *i.e.*, when about 6, worked from 5 in the morning till dark in summer, and in winter began at 6 and worked till 10 and 11 p.m., which was her common time. Sometimes worked on till 3 (a.m.) Was about 8 perhaps then. By about 10 years old she sat at work all through the night "many a time." Never felt very much tired. Used to do the finest work, and could earn 3*s.* 6*d.* in a week, sitting up for one night. The work is very bad for the eyes. Her's are bad now, and she could not make more than 1*s.* by working all the week and late on Friday. Seams three socks for ½*d.* now. Is 66.

Thomas Brotherwood.

Works in a frame. Little girls begin to seam at 5 or 6 years old, not younger. Most at about 6 or 7 or 8. It is just according as the mother is situated. They leave off sometimes at 9 or 10 or 11 at night, and are not fit for anything the next day.

Jane Tapp.

Was up at work two nights last week till daylight, and was completely done up. Often is up all night on Tuesdays and Fridays, because there are orders to be finished. Began to work in a frame when she was not 8 years old. Used to work for an hour or two and out again. After two or three months could go on for a day, and was in it altogether before she was 10. After leaving the frame at night has sat down to work at seaming. When about 12 or 13 did not work in a frame, but at 12 years old has sat up all through the night seaming right through till next night; that is quite the common thing through the place. Knows a girl (names her) of 9 or 10 who has sat up all through the night just lately more than once.

[Other persons present confirm this account of young children's night-work as quite common.]

John Lakin.

Works in a frame. Began at 11 years old, and went at it pretty quick. Is now 63. Needed not work so hard then to earn something as the price was double. Could do nine pair of hose at 1*s.* 3*d.* the pair in a week, and get 2*s.* 3*d.* for himself. Now they would be 5*s.* 6*d.* a dozen.

Has heard what the other witnesses to whose houses he had taken me (viz., all at Sheepshed whose statements are given between that of the Kirby family and his own) have said. The account which they give is just the true account, and the houses were just like others, and the account just the same as any others in the place would give, which would fill a large book very quickly. Does not think that I have heard a word of untruth as to the way of working, except perhaps that of children beginning at 4 years old. Does not know that even that is untrue, but can scarcely believe that they could. All the rest is true, he is sure. Beginning so young as many do weakens the eyes and stunts the bodies. You never see one that does begin so young "grow any," so as to make men and women. The ——s (big girls in a family which I visited) wear glasses when at their frames.

Thomas White.

Works in a broad-ribbed stocking frame making the legs only, and his two sisters-in-law (young women) makes the feet on two smaller frames. It is the best class of work and in good demand, and he is at work pretty evenly the week through; but the regularity depends on the man. There are few that work evenly through the week, even if they have work to do, and they are even more irregular in good trade than in bad, because in good trade they know that they can make enough anyhow, and in bad they are more anxious. A man can make two dozen pairs of such stockings as witness makes at 14*s.* a dozen. Out of this there are about 10*s.* expenses, viz., 2*s.* 3*d.* frame rent, 2*s.* a dozen for footing (making the feet), 10*d.* a dozen for seaming, and 1*s.* a dozen to the bag hosier for taking in, which leaves about 18*s.* a week; but he can earn more himself as he is very quick. Has been at frames many years and has good sight, but dark work hurts the eyes.

[This witness as I was told had always been a very steady worker and could earn double the amount named above. The appearance of himself and his place was in favourable contrast with the mass of small places. His own frame stood in a small shop by itself, and those of his sisters-in-law in a small shop partitioned off from it.]

The Hosiery Manufacture.

Leicestershire. Sheepshed.

Mr. J. E. White.

George Ward, age 17.

Has worked in a frame for 5 years, and before that was a winder.

[This youth looks quite a small boy, being only 4 feet 6 inches high and very slight, though not deformed or sickly looking. The father said that he had not grown much for the last 3 or 4 years. Many of the youths in frames are unusually small.]

George Needham, age 13.—Has been a winder 3 years at his present place and 2 years elsewhere. Winds for five frames now. Has no regular hours. Comes at 6 or at breakfast time or as he is wanted. The regular hour for leaving is 10 p.m. ; it is never later, but sometimes 9. Has a half or sometimes a quarter of an hour for breakfast, an hour, or a half, or a quarter for dinner, and a quarter of an hour for tea. Goes home for all his meals ; the other seven winders in this shop do the same. There are 40 frames. Can get 3*s.* 6*d.* in a good week and 2*s.* 6*d.* in a bad. Has been to Sunday school but little. Can read. (Blunders over one syllable words.) Can write a little. Does not remember any sums ; has not often had them. Was never at a week-day school.

Chares Kirby, age 9.—Works as winder in the same shop as last witness. Has been winder since he was a little over 8. Comes in the morning at 7, 8, 6, or 5. At 5 almost every Friday and Saturday. Stays till 10, 9, and 8 p.m. ; not later than 10. Breakfast and tea generally in the shop ; has half an hour for each. An hour for dinner at 1 ; goes home to it. Gets 2*s.* 9*d.* a week.

Thomas Ward, age 14.—Has been at a frame 2½ years, and was winder at the same place for 3 or 4 years before.

Belton.

Mr. Joseph Alsopp.

Is a hosier (middleman) here. Knows Belton, a neighbouring village, with population of under 2,000. Could find many children there "waling" hose at 5 years old. To be doing this they would have begun learning at 4½ years old.

Hinckley.

HINCKLEY.

This is a village-like town of about 7,000 inhabitants and the neighbouring villages (The chief are Earl Shilton, Barwell, and Burbage) contain about 8,000 more, together forming a district almost entirely dependent upon the manufacture of cotton hosiery, and now in great distress from the scarcity of material. In consequence I found but few actually at work, though some have attempted to introduce woollen work. Many of the houses stand in untidy yards. Several steam hosiery factories have been built in this town in the last few years.

Messrs. Atkyns' Hosiery Warehouse, Hinckley.

Mr. Atkyns.—The Hinckley business generally is in heavy cotton hosiery, and ours is of that kind. We employ none but adults in our warehouse, and believe that our business fairly represents that of other manufacturers in the town in this and other respects, so that regulations as to the labour of the young would make but little difference here.

Trade is now very depressed from the scarcity of cotton, but in ordinary years the course of business in this district is very uniform, and overtime very uncommon, with exceptions only once or twice a year. We do not like young people in the warehouse. It is a confining employment for them.

A great part of the hosiery work is done in houses. I have now a district here under my charge, as visitor for the Relief Committee, and in going round last week I found numbers of cases where girls of only 5 or 6 were seaming. I feel certain that boys also of the same age seam.

They begin to wind at about 6 years old, but do not go out quite so soon.

About 11 or 12 is the common age for boys to begin at frames, and very near the same age for girls. They usually begin at a footing frame, work light in itself, but done in small close rooms. The general rule is to have just enough room for the frames, usually three or four, to stand, and not more than high enough for a man. When there are one, two, or three frames the people generally live and work in the same room.

Steam machinery has not at present been successfully applied to producing the fashioning and the selvages in hose. There have been inventions for it, but they do not seem to have taken. This specimen of power-made hose (one shown) is the result of an invention which created great interest at the time, but the machinery is lying out of use. Such inventions may succeed ultimately, but, at any rate, for a long time the best goods will be made in hand frames. The steam factories here, all built within the last 10 years, have displaced a great amount of hand-frame hosiery, and will still more, but of the inferior kind.

MR. GEORGE WOODCOCK'S HOSIERY WAREHOUSE, HINCKLEY.

Mr. William Woodcock.—My father, the proprietor, is a manufacturer of hosiery, the goods being best-wrought stockings and socks, made on hand frames, either in the town or neighbouring villages.

None but adults are employed in this warehouse. There are five other hosiery warehouses in the town, and there are, I should say, young persons in some of these. There are five steam factories for hosiery in the town, all started within about the last few years. The seaming of the hosiery made in these factories is either done in them, or given out to be done by women and their families.

A great number of young boys wind for the frames, some at home, but many go out to it as young as 6 or 7, and in some places, I believe, are kept very long hours towards the end of the week. In the first part of the week very little work is done at the frames, as the men, with few exceptions, idle then and work very hard at the end of the week, and some through Friday night and up to Saturday morning.

The seaming has to be done after the work on the frames is completed. Women who come into the warehouse on Saturday morning often say that they have been up all night at work, ever since such a time on Friday. That is an every-day case. There is very little seaming done in Hinckley, compared with what there was a few years ago. The pay is now so poor that employers cannot get the work done, unless by sending it to out-of-the-way places in the country, where the people are so destitute that they are obliged to do it.

I see no probability of making fashioned hose by steam power, at any rate for a long time to come. The frames are scattered here, seldom more than six in one place ; four is a common number, often there are only one or two. I do not know how early boys begin to work in frames, but I have seen some not looking older than 9 in them, and at Sunday-school I have often heard boys of about that age complain of being fagged with the work. Girls begin frames older than boys, perhaps about 13. It is common to remark that working early in frames stops growth and injures health.

The usual hours in warehouses here are very uniform, viz., from 8 till 7, with an hour for dinner, and very little overtime, and then not later than 8 or 8½.

The Hosiery Manufacture.

Leicestershire. Hinckley.

Mr. J. E. White.

Mr. William Adams Todd.

Has been master of the National school here for 4 years. The population of Hinckley is just over 7,000, and of these two thirds are engaged in the hosiery manufacture, and, as this is entirely of the cotton kind, they are now in great distress from the scarcity of material. The frames will not work anything else.

The business of the place is chiefly for export trade, and there was plenty of it till the American war, but even then wages were very low. A man would have had to work about 15 hours a day all through the week to earn 12*s*.

There are very few shops with more than 6 frames in them, the frames being mostly one or two in a house. Many women and girls work in these, and he has seen boys of about 11 working in them, but he cannot say at what ages they begin.

Boys begin to wind for the frames at 5 or 6 years old. It is a common thing at the school to hear of such a boy of about that age, "He's left, he's winding." It is the same in the girls' school, which also comes under him. He is told of a girl of like age, "She's left, she's seaming."

There are about 280 names on the books of the National school, and of these about 100 boys and as many girls attend. The average age of the boys is not more than 9 or 10, and that of the girls not more than 8 or 9. He can think of only one girl of as much as 12 years old.

The girls are allowed to bring their seaming to school in the afternoon. This has been allowed for about the last 4 years only, and the object of it is to keep the girls longer at school. Since that change the numbers in the school have doubled, of boys as well as girls. He thinks, however, that the increase of both is owing to this permission, as it keeps the sisters, and parents like brothers to go to a school under the same roof with their sisters, as they can then take care of one another. Found this in his former place.

Hears children say at school, when they have had lessons to prepare at home, that they could not do them because they had to work late. Young boys seam as well as the girls. The average school payment of the children is about 2*d*. a week a head, but if several come from the same family a slight deduction is made. Besides the National school there are four other schools, containing as far as he can reckon about 300 children, and there are about 50 children at dames' schools.

William Hadden, age 7.

Winds for three frames in this (the living) room, and has done so for between one and two years. Father, mother, and Jim work in the frames. Jim is 13 or 14, and has begun a year or two. On Friday night father works till 11. Witness leaves off winding before then, when he has done enough, but is not in bed till about 11, because he has to "lay and turn" the hose (when taken from the frame), and Jim "clips" them (cuts off the loose threads).

Sometimes goes half a day to school when not winding. Says he can read. (Just knows the letters.)

Edwin Hadden, age 4.—"Am going five. Willie "learns me to wind." Can wind three bobbins in an hour. Would be winding now (afternoon) only father is gone to a sale. Winds every day and does six bobbins.

[From this point the account of Edwin, who was too young to give it fully, is taken from his brother William.]

William Hadden (continued).—Edwin has only begun winding this week, and winds for two hours in the morning, from 10 to 12, and does the 6 bobbins which father sets him. Next week he will wind after dinner, and leave off when it gets dark (it is December). I shall seam till candle light, when Edwin gives over. Edwin will not wind by candle light till he is almost as big as I am now. Little Emily (his sister, who was in the room when I entered,) is going in five. She will be 5 when Edwin turns (is twin ?). She seams my father's legs from breakfast till tea at 5. She has begun for 4 weeks, and does 10 legs in a day. (Seaming a dozen legs is less than 2*d*. here, I am told). Walter (brother) is "going in four ;" he has not begun any work.

John Corbett.

Works in a frame (in the living room, more spacious than usual). The frames are generally the property of the manufacturers, who let them to the men. If the frames are not at work some do not require the rent ; some do. If a man has a frame of his own he still has to pay for it in this way : He has to give 1½*d*. or 2*d*. in the shilling on the value of the work given to him in order to get it. Besides he has to pay repairs, so that he does not gain much. Has known cases where men have paid rent for their frame, and paid also for getting work (a neighbour standing by says that he has done so himself lately). Pays 2*s*. 9*d*. a week for his own frame, and 2*s*. for his wife's.

Some warehouses give out the work on Saturday or on Monday in good trade, but most on Tuesday, and sometimes Wednesday. The regular course of work is to take the material out from the warehouse, and if it is not given out on the same day that the work is taken in he may have to go in on a separate day, as Tuesday, to get it, and this takes a great deal of time. Men take their work in and fetch their materials themselves, unless they live very far away, and then they do this through the bag hosier. The cotton trade being so bad he is trying some worsted now.

Boys begin to work in frames when about 10 or 11, and girls at about the same age. There were a number of girls who worked in them, but there are fewer now since the factories have been started, as they have gone into the factories to work the stitching machines, &c. His boy Robert (next witness), aged 10 years and 4 months, has been at work 6 years. In a few weeks he was a good help, but was a year before he was quite good at it.

His daughter Alice, aged 6, and near 7, has been a seamer 2 or 3 years, and her sister Annie, aged 8, began at about the same age. "There's a many begin at 4 and 5." Does not know whether any begin under 4. "They do begin very young, but you see we're so used to it we take no notice."

Alice and Annie would each do 6 or 7 pair of hose in a day, working till 8 or 9 at night, and running out at times. On Friday night they both of them stop at work till 11 and 12. All go to bed together. Annie has been up seaming all Friday night with mother many times, and not gone to bed till Saturday night. She did so last winter, and has done so at times for this long time, for this 2 or 3 years. Should think it is as long ago as that. It is general in the town to work in that way, especially on Thursdays and Fridays, Fridays most. Those who can be up must be up.

Robert Corbett.—Has been winder boy for four frames, working from 7 a.m. till 9 or 10 p.m., not much later except on Friday night.

[The two girls Alice and Annie above referred to seemed unable or too timid to answer the questions which I put to them, which were answered by their parents, the mother, who was working in a frame and looked worn out with work or want, joining the father in his statement given above.]

Elizabeth Jennings.

Her girl Emily there, age 7½, is only just learning seaming, because she has had such poor health. Sent another daughter to school for 9 months, to learn seaming when 5 years old, and there were nearly 20 other girls there taken at about the same age and in the same way. It is called a seaming school, and they perhaps read a little too. She used to go in the morning at about 8 o'clock, or from that till 9, and ought to come away at 6, but if there was much work it used to be 9 most Fridays, and witness used to go herself to fetch her away. She had an hour for dinner, but "she was a very good girl, and as soon as she had done her meal she used to go back." She did so most days, and never stayed more than half an hour for dinner, and sometimes had hardly time to eat. Witness used to ask her when she got up where she was going, but she would not say, but the other children told witness that she was at school. Witness used to blame her for it, but she would go. She "was a very good girl, and her governess was very fond of her" for working well.

The girl never got anything by it for herself except a "knob o' suck" on Saturdays generally. When she first went her mistress promised her a penny at the end of the 9 months if she was a good girl all the time, but though she said she was a good girl she never gave the penny after all. The mistress promised the other girls a penny at the end of their 9 months if they were good girls, and usually gave it; but she refused to give it to witness's child because witness would not allow her to stay a fortnight over the time as the mistress wished. A person had told witness that the mistress was "getting a deal out of the child," and witness thought that she had got plenty out of her, and it was not fair.

Little girls mostly go out "nussing and seaming" at about 6 years old. They are wanted to go at about 7 in the morning and to stay till 9 or 10 at night. They have to seam "when they got a chance." They come home to meals, half an hour to breakfast, an hour for dinner, and half an hour for tea. They get 1*s.* a week perhaps, and when they get to 9 or 10 years old, 1*s.* 3*d.* or 1*s.* 6*d.*, and at about 12, 2*s.* On Friday night "there is some as stays later" (*i.e.*, than 9 or 10). Some would keep them all night if they could, but they durst not, as parents, some at least, would not let them. Witness would not; but all parents are not alike, and some don't mind.

Isaac Jennings.—Husband of last witness. Has one stocking-leg frame and two "footers" (in the living room). Has four daughters; all began to sew when between 6 and 7 years old, one at about 6, but he kept them at school as long as he could. "I assure you a "great many begin as soon as they can handle a needle," some at 5 and 6. They are kept from school for it.

When there is work to do it is the regular thing for them to work on Friday night to 12 and 1, he working the leg making frame, and his wife and daughter, aged 16, the two footers, and all work to the same time. After that the stockings have to be seamed by his wife and children; his own work is to "clip" the stockings, lay them straight, and pair them. They only get two or three hours sleep, and are up again at 6.

There is a great difference between the warehouses. Some do not give out the material till Tuesday, some on Monday, some on the Saturday before. It is a great hindrance to the stockener to have the material late, especially if he has to alter his frame to suit a new kind of work, as from wide to narrow. To do this he has to take out and rearrange the "jacks," "sinkers," and needles (parts of the frame), which takes him a good bit of a day.

John Merrick, age 12.—Is step-son to last witness. Has been out as winder for four years, and winds for three frames. Goes at 7 or 8 a.m. and comes away at night at about 10. Sometimes on Fridays at 11. Stops a quarter of an hour for breakfast, and half an hour for tea; takes both with him. Comes home for an hour to dinner. Gets 1*s.* 9*d.* a week. Besides winding he has had to nurse a baby three or four months old. Used to wind and seam both at home before he went out, beginning when about 7 or 8.

Till then went to school. Can read a little (blunders). Could write and sum a little when at school, but can do neither now. Knows other winders, some who wind for as many as eight frames, and work from 7 in the morning to 10 at night.

Sarah Russell, aged 10.

Does not know her own age. (The mother, next witness, says she is just 10). Began seaming at 6 years old. On Thursday and Friday her common time for leaving off at night is 10. On Fridays she begins at daylight and leaves off just a few minutes for dinner and the same at tea.

Mary Ann Russell.—Does not know whether Sarah was turned 6 when she began seaming; she learned in six months. Children very often begin at about 6, and at that age sometimes are put out to a woman for a year to learn. A mistress takes, perhaps, from 1 to 4 girls, and teaches a little reading once in the morning and once in the afternoon. The children pay nothing and give their work for their teaching. Sometimes the children might be kept on late and a halfpenny given her for it, but very rarely. These places are called "days schools," but there are not so many of them now as there were, because there is so little work now.

Louisa Malkin, age 6.

Began sewing half a year ago. Is 6½ now. Has not been to school since she began. (Knows a few letters, and names pictures shown to her of "bird" and "dog.")

Joseph Malkin.—Began in a frame at 10 years old. Is now 20. In half a year could do the work. It tires his wrist and shoulder.

[This young man looks about 14 or 15.]

Elizabeth Malkin.—Had three other children, besides two last witnesses, begin working at about the same age as Lousia. On Friday night they sit late at work. It is quite common to sit at work all through that night, but she thinks they could not stand it before 16 or 17 years old; "It is not likely." When the boys begin in the frames "it makes sad work with "them."

Richard Malkin.—Husband of last witness. About 10 or 11 is the common age for boys to begin in frames, and for girls a little older, generally about 12. It is about a twelvemonth before they can thoroughly stick at it. The girls are going into the factories now instead.

[In a chair by the fire here was one of the daughters,—a young woman, apparently in deep consumption and with a cough terrible to hear.]

MESSRS. J. BIGGS AND SON'S HOSIERY WAREHOUSE, LEICESTER.

The Hosiery Manufacture.

Leicester.

Mr. J. E. White.

Mr. William Biggs.—The Leicester hosiery manufacture is almost exclusively of woollen, cotton and merino goods being made chiefly in the Nottingham district. The Leicester goods being thus in great part for winter use, the busiest time is the second half of the year. But the Australian season of a month or two follows, and the goods for that market are of the same class as those for the home. This demand is increasing, and naturally will as the colony increases.

In spring and summer there is a demand for Canada; that for America is small as the Americans go for their purchases to Saxony, where cotton and thread hosiery and gloves are produced at a much cheaper rate than they can be in England, as wages there are extremely low. The Saxon goods have been introduced into England, but do not suit the English climate and taste so well, and I do not think they are likely to be introduced to a greater extent, but they have almost the exclusive hold of the American market, and of most of the Continent except of the French who make their own hosiery principally. There is a good deal of domestic hand knitting carried on all over the Continent.

Great improvements have been made in applying rotatory power to the production of fashioned goods, and probably still further improvements will continue to be made as power made goods are gaining on others year by year, but this will never, probably, be carried so far as to bring the whole manufacture into steam factories. Goods requiring most fashion will probably remain out, as factories succeed best where quantity and not finish is the object.

With the increase of the factory manufacture there has been a great increase of wages gained by working in factories, and a diminution of wages of those who work out. A man or a girl can attend to two frames in a factory, a girl being able to earn so about 9*s.*, and a man 12*s.* or 15*s.* a week. Females in warehouses are considered superior to those who work in factories, but probably get about the same wages.

There is but little pressure in any branch of the hosiery business such as to require over-hours in warehouses here; regulations applying to the labour of young persons in them would not occasion much practical inconvenience, and when understood would probably be conformed to without much opposition or difficulty. Probably, however, they are not much required in hosiery warehouses, but if it were necessary to regulate warehouses of other kinds it would not be well to make distinctions between them.

The general education in the town is very good; there is a good deal of teaching on Sundays, and most can afford to pay for it in the week. I believe decidedly that the result of this is shown in the general moral condition of the population, which I should say is as good as that of any town. There has been a decided improvement in the manners of the lower classes.

[Mr. Biggs formerly sat in Parliament.]

Sarah Jane Pritchard, age 14.—Here 1½ years. Bosoms shirts and does needlework, and goes errands. Hours are from 9 till 6½, all the year round, and never later, with an hour for dinner at 1. Did the same sort of work for a year before, with two other girls, at Miss Hewitt's. Her hours there were from 9 till 6½ always. Till then was at school. Learned grammar and arithmetic and "about kings and queens—Queen Mary and "Queen Victoria."

Charlotte Read, age 17.—Mender. Here 6 years. Was in the fancy room. Has same hours as last witness. Never any later during the 6 years that she has been here. Can get 10*s.* or 12*s.* a week; on the average 9*s.*

Was at school till she was here. Did writing, reading, and arithmetic; could not do arithmetic now. "Have had a common education, I believe; not draw-"ing, or that."

MESSRS. R. HARRIS AND SON'S HOSIERY WAREHOUSE, LEICESTER.

This is a very large warehouse in a different part of the town from the factory. It consists of two parts, standing on the opposite sides of a street; one newly built, spacious and comfortable, the old with smaller and lower rooms; one of the latter, though not full at the time of my visit, would be too crowded if the work benches were all filled.

Mr. George Shirley Harris.—Is son to Mr. Harris the proprietor. The Leicester hosiery is chiefly woollen, the Nottingham cotton. In Leicester there are many large frame shops with a large number of frames in each, some with 30 or 40 or more. In some there are only two or three, in others more. In some children and young persons are employed in winding, seaming, and finishing, but the number of these is diminishing, and the hands going into factories.

Wrought hose and many other articles probably never will be made by steam, as, though almost anything might be made by steam, the expense of altering machinery, &c. would be so great that it would not be worth while.

Phyllis Lee, age 15.—Here 2 years. At first looked over socks and put pins where there were holes to mark them for the menders; is now learning to mend. Her hours are from 8¼ till 7 both summer and winter. In summer for a week or two or a month her room stayed till 9. Has 1¼ hours for dinner, and if they are staying till 9 half an hour for tea. All go home to both meals. Was at net making with a needle before, and worked from 8 till 6 or 7.

Before that was at school. Goes to school and church twice on Sunday, and on Monday and Tuesday to night school. Can read, write, and do sums, but is not such a good writer as reader.

Mary Ann Read, age 13.—Here half a year. Is a maker up. Left school at 8 years old. Can read very well, but not write or sum very well.

Selina Pinder, age 14.—Here half a year. "Hooks up" loops of polkas (knit jackets).

Can read, write, and do the first sums. Is going to night school, and goes on Sunday.

Betsy Waffen.—Has been here 10 years. Is now 24. Four years ago stayed till 9 p.m. for about two months, but in other years has not stayed after 7.

Alice Potter, age 12.—Borders polkas. Here half a year. Reads (words of one syllable). Can write copies; not well. Never did sums or went to night school.

Eliza Scott, age 12.—Here a year. Worked at seaming at a woman's house before. There was only one other girl there; she was younger than witness. Used to go from 8 till 8; never longer than 8½. Had an hour for dinner at 1, and half an hour for tea, which she had there. Got 1*s.* 9*d.* a week. Has 1¼ hours for dinner now at 1, and tea after she goes home. If she stays till 9, does not have tea here, but brings some bread and butter here with her.

Sarah Freer.—Is overlooker in the peg-work room. Peg-work is making comforters by twining wool over pegs. Takes girls of about 10 or 11 for this work. Some learn in a fortnight; others never can, and have to leave. They get from 3*s.* to 4*s.* a week.

The Hosiery Manufacture.

Leicester.

Mr. J. E. White.

MESSRS. N. CORAH AND SON'S HOSIERY WAREHOUSE, LEICESTER.

But few females and none under 18 are employed here.

Mr. John Harris Cooper.—This firm, in which I am partner, are spinners as well as general plain and fancy hosiery manufacturers. The females whom we employ in our warehouse, only 10 or 15, are all adults. Our hours are from 8½ till 7 in winter, and from 8 till 6½ in summer, with a dinner hour, for which they go home. I should think there is hardly such a thing as a hosiery warehouse in Leicester open till 10 p.m., and it is very rarely till past 9, even in the busy season and in fancy houses.

We have closed at 2 on Saturdays for about 5 years, and most of the large houses do. We and our people both like it, and just as much work is done.

The hours in Leicester have been very much shortened in the last few years. This has come from a change made by the railways. Carriers would wait for goods any time, up to 12 at night, or even up till the morning, and it was general then for warehouses to be open late. Now goods are generally sent from a warehouse at 5½, and for London or any where they must leave not later than 8. This prevents late work, and people work harder earlier in the day.

I think that great benefit has arisen from the trimmers (bleachers, &c.) and dyers being regulated by the late Act. Young people used to be kept very late then. There was some complaint of the Act at first, but it works well now. The goods come back to us from the trimmers as promptly and regularly as before. The only difference is that more hands are employed by them if they have not enough. This is more beneficial than for a few to work overtime, as the additional wages made by overtime are seldom well applied.

The stitching is done by power in our factory, and part of the mending is done there also. The seaming given out is done exclusively by women in their families, and fills up the intervals of household work, and this, like all employments of the kind, is very poorly paid.

MESSRS. ROWLETT AND RUSSELL'S HOSIERY WAREHOUSE, LEICESTER.

On the occasion of my two visits to this warehouse the people employed had left.

Mr. William Rowlett, jun.—We are fancy hosiery manufacturers, a branch of trade which embraces a great variety of articles, probably about 5,000 different kinds altogether. I am well acquainted with the hosiery trade, having gone as honorary secretary for Leicester on the deputation on that subject to the French Chamber of Commerce, and having also furnished statistics on the same subject to the Government at home.

If any regulations were applied to the labour of young people in hosiery warehouses they might be occasionally inconvenient by preventing despatch of business, and we should not employ those whose presence subjected us to this inconvenience. But there is no occasion for any such regulations as the hosiery warehouses here are conducted. They are hardly ever open after 8½ p.m., and are generally closed by 8 even in busy times. As we make only fancy and winter goods, our English season is only from July to the end of November at the longest. But we have an Australian and American market also.

In our warehouse the hours are from 8½ till 7, with a dinner hour and no tea. The younger ones rarely stay after 7. We have a few under 13; the greater part between 15 and 25; and altogether about 50. Those in the warehouses generally are of a high class, and are respectable and well educated. There is another branch of the business, viz., "making up," where the females are generally of not so high a class. A few people, principally owners of shops, employ children under women to seam, but less than formerly.

The Local Board of Health, of a committee of which I am a member, are now turning their attention to the ventilation of workshops, which is a very difficult subject. The frame-shops are very defective in this respect, and in the old buildings the frames are crowded together in the smallest possible space without any ventilation. A great deal has been done in other respects in improving the condition of the town, which from one of the unhealthiest has now become one of the healthiest of manufacturing towns. Lung diseases, however, are prevalent. The population is about 70,000.

There has been a great improvement in this district as to the ages at which the young begin to wind and work in frames. Winding and seaming are the two least respectable occupations in the town. All occupations that can be carried on in aid of home employments are poor.

MESSRS. WALKER AND KEMPSON'S HOSIERY WAREHOUSE, LEICESTER.

The rules as to hours of work are fixed to the door of the warehouse workroom here.

Mr. Kempson.—Employs very few young girls; there may be more in other warehouses. The hours in this warehouse are from 8 till 7, with overtime occasionally till 8 or 9. These are the usual times in hosiery warehouses in Leicester. A Saturday half holiday is also allowed here, and in most other hosiery warehouses in the town.

Emma Radfield, age 18.—Here three years. Is a mender. The hours are from 8½ till 7; in summer generally till 8, sometimes till 9 when busy, which is during about three months, once or twice a week; seldom after 9; never till 10. Dinner at 1; an hour. No tea time allowed. Sometimes they get some tea sitting here at work, and bring it when they are staying till 9. There are never any girls under 13 in the warehouse, and only two now under 18 and eight over 18, all in this room.

Annie Izzett, age 17.—Mender. Here three years. Gives same account of the hours. Is not often till 9. No tea unless they stay late, and then they have it up here. Was at a printing office cutting pictures before with many younger girls.

Went to week-day school till about 12 or 13; goes on Sunday still, and has ever since she can remember; not to night school this winter. Can read anything, and write easily, but does not like sums. Could do simple ones, as addition and multiplication.

NOON'S HOSIERY WAREHOUSE, LEICESTER.

Only three or four of the persons employed in this warehouse are under 18.

Harriet Malcolm, age 16.—The hours are from 8½ till 8; sometimes for a week or two till 9. An hour for dinner at 1, and three-quarters of an hour for tea at 5; all go home for both.

Has not been at week-day school since 12 years old, but goes on Sundays. Can read, write, and do sums, "a good many sort."

Samuel Birkson, age 17.—Has been here three years as apprentice. His hours are from 8½ till 8, and when busy, till 9 for a month or two together.

Mr. William Marsh.

I am a hosier (middleman) here, and have 40 frames. There are probably from 20 to 30 shops in this town with as many as 30 or 40 frames each, and very few with less than 6. Speaking in round numbers the next number of frames in any single shop would be about a dozen; then about 20; then about 30.

The small shops in most cases adjoin to small houses, but do not form the living rooms as is the case in poor places. Still there is a general deficiency in the ventilation, &c. of stockeners' shops here, though they are much better than in the country, and there is more attention now paid to these things in new buildings; but of the others there are not many over 7 feet high, and in a shop of that height and 30 feet long by 17 broad there would perhaps be 20 people. There is no ventilation, and the gas makes the air very hot and unhealthy in the evening. A light is wanted for each frame.

Generally speaking the men who work in the shops in the town here are more intelligent and industrious, and have the opportunity of using better machinery, than those who work in the country. The machinery (frames) now made is wider, and cannot be worked by such young hands as the smaller; but there are very few learners in the big shops here now. They learn principally in the country and the small shops in the town.

For my 40 frames I employ only two persons under 20 years of age, and I believe the same would be found generally through the town. Even in the smaller shops here there are probably not many working in frames under the age of 18. Formerly boys used to begin in frames very young. I have known some begin under 8, some at 9, and the average was 10; but they cannot begin so soon now as the frames are wider. There are but few women and girls in frames here; they go more to work in factories.

Where there are many frames together there is always more regularity; there must be rules of some kind. The general hour for beginning in these places is from 6 to 8 a.m., and for leaving off 9 p.m. My own shop is closed at 9 on Friday nights, just the same as on other nights. There is not much late work in any but the smaller places, and not in many of them, I think.

All shops have winder boys, who are taken at any age at which they choose to come from 7 upwards. The youngest are in the smaller shops. Each boy has to wind for a certain number of frames only, and has fair time for meals; an hour for dinner and half an hour for tea. In many cases machinery is now being used for winding, and is turned either by power or by a strong boy or girl, and this will diminish the number of boys required. The winder boys are generally taken from the poorest class, and are poorly clothed and untaught and disorderly. The employment is looked upon as one of the least respectable, though some parents bring their own children to work with them; but the wages are fair, being 3*s.* or 4*s.* a week on the average.

The earnings of men in this town at frames would be according to their quickness; some would get 7*s.* or 8*s.* a week; another class of men 14*s.* or 15*s.*; another class 1*l.* or more.

The greatest amount of seaming comes out from factories and the large shops in towns, and with tolerable regularity. If it goes into the country it is sent by carriers about twice a week or so. If it comes from the smaller shops, or is done at the men's own houses, it is very irregular, as in those places men are more their own masters, and do not begin till late in the week, and work very late at the end, as they must finish by Saturday, and this makes very late seaming work. I do not see any way in which this can be remedied. It should be, if possible, as such late work should not be thrown upon young children, as many of the seamers are. The seaming is given out to women and girls who come for it. There are only a few women who employ any girls at it; these may take in four or five girls of 7 or 8 or more. I do not think there are many cases where girls are employed in making up goods in the shops where the frames are. There were a few in fancy hosiery places, but are less now.

If there were any rules as to the work of the young it is difficult to see who could look after them in small places and private houses. A man who works in these places generally gets the seaming done by his own family, and would not like to send it out to be done, as he would lose the benefit of the work and he would have to pay for it; so that if he could be prevented from overworking his own family he would not get it done late elsewhere, but would work so as to let his own family do it earlier. As a rule, with, of course, exceptions, men of this class are very ignorant, and scarcely know they are doing anything wrong in keeping them up at work so late as they do.

I think that frames will gradually be still more concentrated in larger shops, and to some extent, though not for some kinds of goods, in factories, and also in or near to towns. Many, however, will probably remain in villages on lines of railway which have rapid communication with towns, which is now of more importance.

MESSRS. RODWELL'S HOSIERY FRAME SHOPS, LEICESTER.

Mr. Matthew Rodwell.—I am a hosier (middleman) having 45 frames in these shops, and Mr. Wm. Rodwell 36, and we have more elsewhere.

Boys do not go out as winders much under 9, unless with their fathers, and they begin to work in frames between 10 and 14, girls from 14 to 16, and some after they are married. There are a good many females work in frames. 14 is quite young enough for a boy to begin even in a small frame, *i.e.*, so as not to interfere with his bodily growth, owing to the confinement of the work.

There are a great number of large shops in the town with many frames each, and the number of such shops is on the increase. A few shops are larger than ours. In one there are 80 frames, in many over 20, in most about 10 or 12, and there are only a few in ones, twos, or threes in houses. In most cases the frames are owned by the manufacturers, and they prefer to get them into the shops, as the work is more regularly and better done there. When the men work by themselves in their houses they work but little at the beginning of a week and late at the end.

The seaming is done by females in the town. A few employ young girls of from 6 to 7 years of age upwards, but much fewer than formerly, and the practice is almost extinct. Where the men work frames in their homes the seamers often have to work all night. As the larger shops increase, the late seaming work will diminish owing to the regularity of work.

Francis Wheelburn, age 12.—Has been here as winder for a long time; does not know how long. (The father who works in the shop says it is 6 or 7 years.) Comes at 8 and leaves when he has done, *i.e.*, about 7, or 7½, or 8, not often later; 9 is the latest. Dinner from 12½ to 2. An hour for tea; most of them bring it here. Gets so much a week for each frame, from 6*d.* to 1*s.* 3*d.*, making about 4*s.* Winds for four frames.

School on Sunday; in the week, before he was a winder; never at night. Can read (spelling most of the words). "Ships" swim on the sea.

John Davenport, age 10.—Has been a winder three years. At another place wound for six frames, and worked from 7 a.m. till 9 p.m., or on Fridays till 10. Works here from 8 to 7.

Says he can read (barely knows the letters). Does not know any figures. Used to go to school on Sunday. Does not know what the man used to preach about.

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Leicester.

.J.E.White.

George Sheriffe, age 13.—Winder here for half a year. Winds from 7½ till 9. Before that wound at home for three or four years for his father's and three brothers' frames.

Went to school for six months a year or two ago. Knows the letters; mother taught him. "She used to teach me to read, but I couldn't." She said he could soon read or write either.

Edward Stevenson, age 11.—Has been a winder six years. (The father says it is four or five.) Two or three here, and before that at home.

Before that was at school. School on Sunday now, but not to a night school ever. "Can know my A, B, C." (Does know a few letters.) Praying is "Our Father." "Can say it very near through." Winds here from 7 a.m. till 9½ or 9 p.m.; 9 is the proper time.

Mr. John Moore, Surgeon, Leicester.

I am medical officer of health for the borough of Leicester, house surgeon to the union workhouse, and also examining surgeon to the borough and county police.

In the course of my duty I am constantly in the stocking-makers' shops in the town. The older of these are almost invariably low, and their ventilation in every way imperfect, but the newly built are better in these respects, and larger.

The nature of the work requires a large amount of light, which in nearly all cases is furnished by gas. I have observed by the thermometer that the temperature is raised at night many degrees, and the air also becomes impure; this is no doubt caused in great measure by the gas. The gas in burning deprives the air of so much of its oxygen that it does not leave the proportion indispensable for health. This alone is so serious a mischief that it is scarcely necessary to enter upon any other effects which the gas might be supposed to have. I never made any calculations as to the amount of gas which might safely be introduced into a room. Any great amount must be bad, and people breathing air as impure as that in the closer and hotter stocking shops for any length of time must suffer in health, and the foundations of disease of the lungs be laid.

The council here pay great attention to enforcing cleanliness in dwellings, and carrying out proper sanitary arrangements of all kinds, and the improvement in general health has been proportionately great.

I have been in almost every stocking shop in the town, and I decidedly say that it is very improper that boys under the age of 17 should work in any such frames as I have seen there. I have not seen smaller frames elsewhere. The ill effect, however, of the employment arises, I believe, chiefly from living and working long in ill ventilated rooms, and being also ill fed.

I do not believe there is any special local injury produced by the work from straining, &c., and if there were I must have noticed it in the men that I have had before me to examine. But as a rule I have observed that stockeners are a small and slender race, and inferior in bodily condition to the other classes. Even their arms, which are in constant use, are deficient in muscle. Their employment is to a great extent hereditary, the son of a frame-work knitter naturally taking up his father's work and frame, and the race thus gradually deteriorates more and more.

Mr. Joseph Dare, Churchgate, Leicester.

I have been for many years minister to the poor for the Leicester Domestic Mission Society, the objects of which are to ascertain and improve the condition of the neglected classes here. In my daily visitations I have been in the houses of nearly all of the working classes, and am also engaged in the evening and Sunday schools connected with the mission. Many of the results of my observations are contained in my yearly reports for the last 17 years, published by the Society, and those reports were drawn up with much care. They contain many remarks, founded on my experience, as to the bearings of the employments of the young in this town upon their education, or rather want of education, and upon the necessity of some instruction being made compulsory, either by employers or the Government, as in the case of factories.

In factories the system of work and other arrangements are excellent, in consequence of the factory regulations, and it would be a great blessing if such regulations could be extended to all juvenile labour, as in other places the young are too often sacrified to ignorant parents, exacting masters, and sometimes to the ill-treatment of careless or drunken journeymen.

The condition of those who are called the neglected and dangerous classes is just the same here as it was 20 years ago. The Government, Church, and denominational schools of all kinds are effecting but very little compared with what they were intended for and what they might do; and this is in consequence of the system of the employment of the young at so early an age. They leave week-day schools by about 9 or 10 years old, if not before, and rarely stay for more than a year and a half or so, some only a month or a week, and they cannot come to evening schools because they are so late at their work; or, if they can come, they are too tired to be interested, and often fall asleep. They should therefore be compelled to go to school some time in the day, if possible, or if they must work all day, then they should at any rate be obliged to go at night, as this would be far better than nothing. The factory plan of half days would be very good. Regularity of school teaching is everything.

There is great irregularity of work, as manufacturers now work so much more to order instead of to stock, and in some cases will not work at all unless they have orders. This is now universally the case with all the branches that depend upon fashion, and where fancy goods, &c. are manufactured. From such places the children often come to night school very late or not at all, being kept at work.

The winding boys, too, have to work very long and late hours in consequence of the irregular habits of the journeymen. Formerly they had to undergo a great deal of ill-treatment, but I have made strict inquiries about this, and believe that there is now a great improvement in this respect. The winding boys are some of the poorest and most uneducated and neglected class, which is now also finding employment in the large shoe manufactories established here quite lately. The work at the shoe places is not late.

Nearly all the hosiery sewing is given to women, who do it with their children in their homes. Children used to take their seaming with them to dames schools. There are a few women who take in a small set of children, perhaps four or five, to teach seaming, getting the children's labour in return. Whether these children are kept long would depend upon the state of trade and the disposition of the women. I have seen some of these women with a cane. I consider the system of working under these women an evil, as it keeps children from all instruction, and the women are generally ignorant themselves, and unable to give any due moral training.

Errand lads have also very little instruction owing to the unreasonable hours they are kept to close shops.

Some idea of the working of our best day schools in manufacturing towns may be gathered from the statistics lately furnished to me in a letter from Mr. James Hepworth, master of the Great Meeting day school in Leicester, which is under Government inspection, and himself a first-class certificated teacher. (A copy of the letter referred to is given below.)

From such facts as these, gathered from my experience and labours amongst the neglected and dangerous classes extending over a period of more than thirty years, it is my deep conviction that if ignorance, pauperism, and crime are to be diminished amongst us, and these classes socially and morally improved, there must be some regulation of all juvenile employments, and some kind of compulsory instruction and moral training brought to bear upon them.

A well organized system of evening instruction, both for boys and girls, might do to begin with, so that all children who leave the day school at 8 or 9 years of age might be compelled to attend the night school.

The Hosiery Manufacture.

Leicester.

Mr. J. E. White.

Letter referred to in the above statement.

16, Guthlaxton Street,
26th Feb. 1863.

DEAR SIR,

I beg to forward you the following statistics. During the past year 742 children have attended the Great Meeting Boys' School. Of this number

341	attended	100 days and upwards.			
31	„	90 and less than 100 days.			
29	„	80	„	90	„
27	„	70	„	80	„
314	„	less than 70 days.			

337 left during the year.

From calculations based on the school registers, the attendance at this school does not average more than 17 months.

Yours, &c. JAMES HEPWORTH.

Mr. Dare wished to refer me for parts of the above statement to his published annual Reports, which he kindly gave me an opportunity of reading. He afterwards submitted his statement so drawn up by me to some of the members of the committee of his Society and also to an intelligent working man, asking them for their impression, and returned it thus revised, so that his statement may be presumed to embody the experience of those persons also.

His Reports extending over the last 17 years are full of statements of the kind embodied in his evidence given above, some repeated time after time, as in particular that relating to the necessity of some regulation of the labour of the young as the only possible means of bringing them within reach of education and saving them from vice. The statements are borne out by further details of facts and observation, but he informs me that in his statement as drawn up above is "extracted the drift of his experience and most earnest convictions." A few extracts however are added for the sake of some details of interest.

EXTRACTS from the ANNUAL REPORTS by Mr. JOSEPH DARE to the LEICESTER DOMESTIC MISSION SOCIETY.

For year 1846.

"One man who died of consumption attributed it in "part to the *gas* and *closeness* of the shop in which he "worked; he thought all larger shops ought to be "inspected as to their ventilation, &c., like factories."

"Many in all the classes (in the school) know not a "letter at their first entrance; and there is a portion "of children called 'winders' who are so occupied "that they are almost entirely cut off from all instruc-"tion."

For year 1847.

"I was informed that she (a girl of about 7) went "to a place to learn seaming. She went at 7 in the "morning and stayed till 9 or 10 at night. She had "to seam three dozens (pairs) each day except Satur-"day, when she was 'let off with two dozen,' so that "she would have to seam 17 dozens or 408 single "stockings weekly, for which .... she would take "home 1*s*."

For year 1848.

"Laxity of parental authority, early and exhausting "toil, contrasted by long periods of idleness, ... "and above all the indifference of parents to the educa-"tion of their offspring, operate in a fearful manner "against the improvement of this class." (Boy's In-"struction Society.)

For year 1849.

(States the result of personal visits to all the schools in Leicester that) "In a population of 56,000 . . . the "Dissenters have not more than 800, and the Church "not quite 2,000" (at their charity daily schools). (This is exclusive of private places of instruction of all kinds and infant schools, making about the same number.) "The average attendance of the small por-"tion of the children of the working classes who "attend school is less than two years. In the rural "districts it is not so much, indeed, scarcely a year." "The Sunday schools of all kinds contain about 8,000 "scholars."

For year 1851.

(States as the result of inquiries made by himself and 6 other enumerators at the time of the census in 7 contiguous districts, containing nearly 5,000 inhabitants, or about a twelfth of the whole population) "that fully "two thirds of the children who should be receiving "daily instruction are not at school." (Gives instance of one district of about 600 persons,) "of these only "50 were returned as at school, and 32 of these were "under 9 years of age. One (only) was 13 years old. "There were 89 from 5 to 15 not at school. All these "(the 50 and 89) ought to have been receiving instruc-"tion . . . . . (being about 1 in 4½ of the population) "and this number is the well known proportion that "should be under daily tuition."

For year 1857.

(Speaking of the former ill treatment of winder boys and their late hours) "Hence we have few winders in "our ragged class, and these often fall asleep from "exhaustion. Driven early from home to work he "feels nothing of filial affection or parental control, "and as his weekly earnings are added towards the "support of the whole family, he soon thinks he can "do better 'on his own head;' so he breaks away "from all restraint and becomes his own master.

"There is a similar class of girls in the seamers and "others who are sent from home while mere chil-"dren to nurse others."

For year 1859.

"In short, wherever a given number of hands are "employed they should be under the same laws as "the factory laws. I feel convinced that the more "reckless are supplied from these oppressed and "neglected juveniles.

"Employers should insist upon all their hands whose "education has been neglected attending," (*i.e.*, at evening schools, which he hopes the Government will set up, under inspection.)

For year 1860.

"All juvenile labour should be placed under the "Factory Act." (He appears to speak of this with reference to a limitation of hours only), proceeding, "The "Act regulating the hours of labour should be supple-"mented by some system of instruction and moral "training for the young of both sexes . . . . Parents "must not possess the absolute power of making their "children mere machines to earn so much weekly "wage." &c.

The Hosiery Manufacture.

Leicester.

Mr. J. E. White.

For year 1862.

(After speaking of the want of ventilation and number of gaslights in the shops in which the men work in the town) proceeds, "This is the way disease "is generated. All workshops should be, like factories, "under inspection.

"The winders and seamers, the errand boys, and all "who have been driven from day school too early are "coming up in the same habitudes as their predecessors, &c. . . . . It is of little avail to open free "reading-rooms and free libraries so long as the real "workers are untaught and untrained. They cannot "as a body read sufficiently well to feel enjoyment in "mental exercises.

"Many parents have no better idea of education "than merely to get rid of their children by sending "them to school, just as long as they are incapable of "earning a few pence."

MESSRS. T. W. HODGES AND SON'S, ELASTIC WEB MANUFACTURERS, LEICESTER.

The proprietor of these premises, which are large and fine, did not wish me to go round his warehouse or to make inquiries from any of his people but an overlooker, who however gave a general account of the system of the place; the only rooms in which persons were employed being the warehouse room through which I passed to the private room of the proprietor, and a long room separated from the latter only by a glass division. Both appeared spacious and airy.

Mr. Hodges.—We manufacture elastic web of all known sorts. I have been in all the manufactories of the kind in France and Germany. There are about a dozen elastic web manufacturers in Leicester, and their business is carried on much the same way as this. Some of their warehouses form part of their factories and are subject to the factory rules. Ours is not. It may be taken generally in this trade that there are about 10 hands in the warehouse to 100 in the factory.

Hardly any children are employed in this warehouse. There are about 50 females, not 1 in 10 of them under 18; they are not so suitable young. Any regulations would be very inconvenient. The trade is not much subject to seasons.

Selina Arkwright.—Is overlooker in the warehouse here. There are about 74 females, most between the ages of 15 or 16 and 30. A child could not do the work properly. About 60 pick loose ends off the web, in a long room by themselves. The remainder are at the counter, where they label and pack up. There are no boys. Has been here 8 years. The hours are from 8 till 7 all the year round, with an hour for dinner at 1, all going home to it. There is no tea-time unless they stay till 8 or 9, and then they go home to it for three-quarters of an hour. That happens only on odd nights, not so much as two or three weeks in the year. Has stayed an odd night to 10. Work cannot be taken home. The people are paid by the week.

MESSRS. ARCHIBALD TURNER AND CO.'S ELASTIC WEB FACTORY AND WAREHOUSE, BOW BRIDGE WORKS, LEICESTER.

These premises, which stand on the outskirts of the town, are very large and airy, and appear in every way admirably conducted. The names of all employed in the warehouse were entered in the factory books.

Mr. James Padmore.—Though not a partner, I have been engaged here for several years, and in the absence of one of the firm I have been left in charge of the warehouse here. This employs many young persons and females, but it adjoins the factory, and has a shaft communicating with the latter, for turning some small winding machines, and, in consequence, it falls under the factory regulations; and except this and the factory there is no other establishment belonging to the firm in which children or young persons are employed.

More inconvenience is felt from the factory regulations in the warehouse than in the factory, and in this way. At times there is a run upon a particular article, or goods are wanted for shipment. In the factory arrangements can be made that will allow of producing the amount required with men only working overtime. This cannot be done in the warehouse, where the labour is almost entirely that of females, and could not be done so well by men, not to mention the increase of wages, which employing men would involve. Last season great inconvenience was felt from this, and in order to avoid any infringement of the factory rules a room at a small distance had to be prepared at much trouble and cost to which the winding machines had to be removed every evening, being brought back again in the morning to the warehouse, where they could be turned by power. These machines being too heavy for the females had to be carried each way by some of the men, and they would do so only in part of their working hours, and the result of this and of the interruption by unsettling the work was a great loss of time, as much as two hours we reckoned; for though the girls worked till 10 at night, and became much over-tired and unfitted for work the next day, we reckoned that they did not do more than they would have done by working only till 8 if they could have stayed in the warehouse. If we could have had leave for that it would have saved all the inconvenience. We could not meet the difficulty in any other way, except by permanently increasing the size of the establishment and the number of machines. If the pressure is only occasional it is not worth while to make this outlay, but of course if it becomes frequent, arising from the increase of the particular business, or the growth of trade generally, there is no hardship in the expense of increasing the establishment, which in fact is now being done here.

The manufacture is of quite late origin. It depends upon the principle of introducing indian-rubber into a fabric (woven), and this was not known till 20 years ago. The manufacture was introduced into Leicester, now its great seat, 14 years ago by Mr. Turner, and since that time it has rapidly increased, and is still increasing.

There are about 10 or 12 other elastic web manufacturers in this town; 2 in Derby, 1 in Loughborough, 1 in Coventry, all small; 1 in Birmingham and several in Manchester of some size. These are the principal seats of the manufacture in England, but the fabric is produced in Germany at a much cheaper rate, owing to the much greater cheapness of labour there; but it is inferior in kind, and not likely to supply the place of the English article, which has the advantage of our superior machinery. This factory, which is probably one of the largest, employs about 420 persons.

[This statement was concurred in by Mr. William Watts Clarkson, one of the firm, as expressing his views.]

EVIDENCE AS TO THE VIOLATION OF THE LAW RELATIVE TO THE EMPLOYMENT OF CLIMBING BOYS IN SWEEPING CHIMNEYS.

Examined by Mr. Tremenheere, London, August 4, 1862.

No. 1.

Mr. Peter Hall, of Wellington Road, Stockport.—I have been requested, as agent for the North Staffordshire and Birmingham Association for preventing the Employment of Climbing Boys, to tender my evidence to the Children's Employment Commissioners.

I was first engaged as agent of the Midland Association about 10 years ago, then as agent of the Association with which I am at present connected.

Mr. Edward Eddison, Solicitor, Leeds, Mr. Edward Elliot, at Leicester, and Mr. Joseph Jones, at Derby, were the principal promoters of that Association. At Birmingham, the principal promoters were the Messrs. Sturge. In North Stafford, Francis Wedgewood, Esquire; in Manchester, Mr. William Wood, of Bowden, near Manchester; at Bradford, Mr. Alfred Harris, banker.

I am now 58 years of age. I was brought up as a climbing boy from the age of 6½, and although I was apprenticed to one of the best masters in the trade, I had only a Sunday school education.

I have taken an active interest in this subject for the last 20 years, and have been instrumental in obtaining at least 400 convictions, under the Act 3 & 4 Vict. c. 85.

The Act in its present state is defective. I have good reason for knowing that it is violated to a great extent in most of the towns in the kingdom, and this illegal practice is very much on the increase. In Yorkshire where there is no Association to prevent this climbing system it is very bad. In all Sheffield when Mr. Roberts and Mr. Montgomery were alive there was not one boy; and now there are 22, varying from 5 to 10 years of age; there are also several in the villages about. Bury was free for four years, now there is one. There are fourteen at Chester. At Nottingham there are 20. From thence in all the towns northward to Newcastle-on-Tyne (Halifax excepted), there are from 2 to 10 boys employed. All over South Staffordshire, also at Coventry, Ashby, Leamington, Bridgenorth, Chester, Wolverhampton, Birkenhead, &c. I could give 50 other towns where climbing is going on. I have lately ascertained that it is not abandoned in London and its suburbs, very young boys being employed. In the county of Kent there are many, especially in Maidstone and Gravesend; also at Greenwich and Woolwich. At Birmingham, where during several years "the Association for the Sup-"pression of the use of Climbing Boys" has been taking active measures to enforce the Act of Parliament (and where nearly 500*l.* has thus been expended in the last five years), 25 boys are employed; some very young; one a poor child, not more than 7 or 8 years old, can scarcely walk along the streets from sores and bruises received in climbing; and I am told his master is going to have pads made like those of horses for his poor knees. At Lord ————'s a child was dragged out of bed at 2 o'clock in the morning to sweep the chimneys. At Sir ——— ——— climbing boys are used. At Wakefield there is a man named ——— who has three or four climbing boys. At Blackburn there is ———; at Preston ———; at Rochdale ———. At Manchester there are, I believe, three boys; I gave a blow at that place to the climbing practice five years ago by getting ——— fined 7*l.* 10*s*,

At Stockport I saw a child of about 8 only the other day with a man who is just out of gaol, his own child it is; most of them are worked by their parents; Mr. Wood got him convicted before for the same offence. Last week I went to Ripon, and found a man named ——— with a child a little more than 6 years old. One that knows the trade, as I do, can always tell what they are going to do with the child from the look of them, but they say they have him to carry the things; but the doors are all locked, and the blinds pulled down, and windows fastened, as soon as they get into a room; so that it is not easy to catch them.

The magistrates are very often dead against us; I had 7 cases in one town, in none of which they would convict; so are the police frequently; I apply for information and they give none; they often lend themselves to it, calling the man and the boy of a morning to do what is illegal. There are 2 boys at Retford, but its no use going after them.

I have tried for convictions under the "Servants Protection Act" (14 Vict. c. 21) for ill treatment and want of food, &c., but have never got beyond a common assault.

In December last I had a case at Ashton; it was of a child just turned 7 who was compelled by his master to climb a cottage chimney, and was badly burnt. This case, which was brought before the Magistrates, is thus described in the "Stockport and "Cheshire County News" of 6th December 1862.

"Inhuman Conduct of a Sweep.—A case of gross brutality was heard on Wednesday at the Town Hall, Ashton-under-Lyne, when Robert Robinson, a chimney sweep, of Ashton, and John Shaw, a beerhouse keeper, at Hurst, were summoned for allowing the chimney of the latter to be swept by a boy instead of a machine, as required by Act of Parliament. It appears that a poor child only 7 years of age, was taken out at three o'clock in the morning for the purpose of sweeping chimneys, commencing at the house of the defendant Shaw. He was forced up the chimney by Robinson, and told if he did not go up it he should have nothing to eat that day. It was proved that the chimney was on fire! and that the poor child was burnt in various parts of his body. Information was given to Superintendent Dalgliesh, who took charge of the poor boy and sent him to the Workhouse, where he was placed under the care of the medical attendant. The case was conducted by Mr. Lord, solicitor, of Ashton, who appeared on behalf of Mr. Hall, inspector to the Association for the protection of young children, and stated that, in consequence of the prevailing distress, the Association would not take any portion of the penalty, but present it to the Relief Committees. The Bench complimented the inspector for bringing these most inhuman cases forward, and ordered Shaw to pay 3*l.* to the Borough Relief Fund, and Robinson 3*l.* to the General Relief Fund. In addition to that they were fined costs, amounting to 1*l.* each, and in default committed for two months to hard labour."

Last Monday week (this evidence was taken on November 26, 1862,) 2 cases were tried at Stafford, one of a man's own nephew, a boy of 12; they were fined 5*s.* and had 14 days in default. I had reduced the number then to 2, but there are 5 now. At Macclesfield there is a case of a boy under 7 being dragged out of bed at 2 a.m. and driven up a chimney. At Whitchurch there is a boy with a wound on his head of an inch and a half long, which his master gave him with a poker.

Those masters who have never climbed themselves are the most barbarous by far, and there are many such; the man at Ashton was a travelling tinker.

It is quite true that if the commitment fee is not paid by the prosecution the defendant is discharged even though he may have been sentenced to be imprisoned for not paying the fine imposed by the magistrate; the fee is 12*s.* 6*d.*; that is so in Birmingham to a marked extent; they are very indifferent there; in one case when we had even paid that fee,

Climbing Boys.

and the defendant had absconded, the police would not take the trouble to look for him, though we told them where he was to be found. We can and do get convictions in the absence of the defendant.

A man who uses climbing boys can get through more work in a day than he can with a machine, and that is the principal reason why the machine is not used, together with the continued misconstruction of chimneys. Many houses, especially in the north, are still built in violation of the clause in the Act relating to the construction of chimneys. I could prove 50 cases in Bradford alone, of violation of that clause in the Act, and the same in many other towns.

In many public buildings, which are even now being or have recently been built, the clause 18 of the Act 4 & 5 W. 4. c. 35., relating to the form of chimneys, is totally disregarded, both by the architect in his plans, and the builder in his execution of them ; the latter often has no alternative, especially in small class work ; for frequently lots of cottage property are run up by clubs and societies, who employ only the common workmen without any regular contractor; that's why in either case, of public or private buildings, that is, I would have the architect liable, the designer, that is, whose plans are followed in the construction.

In many towns where there are badly constructed chimneys, trap or soot doors by which the sweeping machine can be used, have been made ; and I never saw a chimney having proper trap doors which I could not sweep with the machine.

I have put up 1,000 soot doors myself : in some few cases it requires special experience of chimneys, but generally any bricklayer can do it.

It is rare for climbing boys to get any other than a Sunday school education, and very few get that, from my own knowledge. Generally speaking, they are brought up in gross ignorance and vice. They don't go to evening school, as they don't take the trouble to wash themselves. They have not been accustomed to education when young, and they don't think of it. When I took the statistics of them in 1851, out of 348 boys I could only find 6 who could write, and 26 who could read, and most of them very imperfectly. I have not a shadow of doubt from my frequent communication with them, that they are not only in the same state of ignorance now, but even worse, because the masters who bring up these children to climbing now, are the worst in the trade by far. They are the men who set the law at defiance, and who will not go to the small expense of getting machines, and do not like the trouble of working them. A machine costs 3*l*. 10*s*. on an average, and lasts about four years with care.

The usual number of hours that the boys work in the small country towns is 8 or 9. It is only morning's work ; but in the larger towns they work from 12 to 16 hours daily, even the youngest ; and the younger they are the more they work, as the masters can get through more work the smaller they are.

The amendments which I should propose in the Act are—

1st. That no one should be allowed to exercise the calling of a chimney sweep under the age of 16. Proof of age to be upon the employer.

2nd. That the architect as well as the builder should be made liable in case of the building not being in conformity with the Act.

As the Act stands, there is a difficulty in getting convictions, it being often found impossible to ascertain who is the builder. The plan should be submitted to the surveyor of the district, with a view to its being in conformity with this Act. As the Act stands it is easily violated in regard to the boys, in consequence of the master taking a boy into the house with him under the name of an assistant, to carry the machine, and the bags. When once in the house, there is no one to prove that the boy went up the chimney, as the master sweep pulls down the blinds and locks the door. The householders also are apt to connive at the machine not being used, because the masters do it carelessly, in order to prove that the machinery is inefficient.

It would be attended with no difficulty or disadvantage whatever, if the Legislature were to forbid the employment of youths under 16, in the occupation of a chimney sweep.

There should be some amendment of the penalty clause in the Act ; the being bound to inflict a fine of not less than 5*l*. or more than 10*l*. does not allow the magistrates sufficient discretion, and they don't like the 5*l*. penalty; besides, the imprisonment is not an alternative punishment in the first instance, but only for not paying the fine. I think they should have power to inflict a fine of from 40*s*. to 10*l*., and of imprisoning for a period of from one to three months.

We ought also to be able to go on the premises when we know a boy is being used ; to have to wait for a warrant to search would be to give them every chance of escape.

One of our great difficulties is what to do with the children ; they are generally either orphans and homeless, or their masters are their parents, and in either case we are equally unable to take care of them.

EVIDENCE COLLECTED BY THE ASSISTANT COMMISSIONERS.

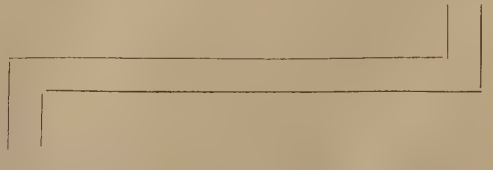
Examined by Mr. Lord.

Examined by Mr. Lord.

No. 2.

Mr. Wm. Wood (of Bowden).—I am an old man now, and a great portion of the latter years of my life I have devoted to protecting these unhappy children, the climbing boys, and getting their oppressors punished ; my experience extends over a number of years, but my memory is confused at times, and unfortunately I never kept a diary, but I think I can tell you something about them.

I must allow that in the last six years no case of special cruelty had been brought under my notice ; but the mere employing and even teaching of them at all is and must be cruel. I had large placards printed and distributed about 6 years ago throughout the country at large railway stations and similar places, proclaiming the law and the penalties for infringing it. I hope the better treatment may be in some measure owing to that ; but I fear that the employment of boys is springing up again in many places, and I cannot do now what I could once. I have travelled over all the kingdom trying by persuasion and by intimidation to put the practice down. I cannot say that the magistrates generally have given me much assistance or shown much courtesy ; "It is "quite foolish and ridiculous, Sir," said one in a neighbouring county; "lads must be had to sweep "chimneys, I can't help what the law is." That may have been some time since ; but only 2 years ago I called on a gentleman living not very far away from Chester whose income is over 3,000*l*. a year, and very respectfully told him that as his chimney then was arranged it must be swept by a boy, but that the outlay of 10*s*. would obviate that necessity. He said "preposterous." I offered to do it for that myself, whereupon he told me he was engaged and bowed me out. The chimney was in this shape :—



the width being 14 inch. by 19 inch. and the length of the horizontal passage 10 yards; along the whole o that a boy would have to work his way on hi stomach sweeping as he could, and at the upper ben

the point of the angle would be on his back, which must be curved in to allow him to get round the corner. So their backs get broken at times, and in such places they have stuck and died; 17 months after my visit that chimney still had no soot door and was unaltered.

I recollect a case at Preston where a boy had been flogged severely by his master for refusing to go a second time into a hot steam boiler flue; there the master was fined 10*l*.

About 3 years ago there was a bad case at Ashton. Two boys had to sweep out a hot boiler flue; they were afraid at first, but were plied with beer and so went in, but in 15 minutes they came out very much burnt. I saw their burns myself. The man said they should have nothing for their work till it was finished; he got a plank for their feet and put it along the bottom of the flue, but it was no good; the engineers often put a plank in for the boys to stand or crawl on. I have frequently seen that quite charred by the heat.

In a prosecution at Stalybridge not very long ago it was proved that 2 boys had swept 78 chimneys in 3 days for the prisoner. When he was called upon for his defence he said to the chairman "You know my "lad sweeps your chimneys;" the chairman perhaps did not know it, but it was true.

In the south of London there is a great deal of climbing by boys; Kent is especially bad. There are some bad cases in Windsor; I heard of a girl being used there, but cannot vouch for the truth of that. I wrote a letter to Her Majesty about a chimney in the Castle there which was always swept by a boy, and I believe it reached the Queen's own hands; at all events I received a very polite answer from the Lord Chamberlain. I do not know any more about it. I have no doubt that orders were at once given that the practice should be discontinued.

The worst of all is that when the lads grow to manhood there is nothing for them to take themselves to; they are obliged to give up climbing, for they are too big to be of use in most cases and leave the trade, but no other is open to them, no one will apprentice a sweep or take him into his shop or warehouse. "What have you been?" "A chimney sweep." No more questions are asked after that answer, and so more than half the climbing boys find their way to prison. I was informed by one of the Leeds sweeps that three-quarters of the lads there got to the gaol; the gaoler at Northampton told me that they are never without a sweep. The chimney is indeed, as you say it seems to be, a hot bed for the gaol.

Climbing Boys.

Bowden.

Mr. H.W. Lord.

There is a very bad case reported in the "Manchester Times" of December 8th, 1848. A more recent one is this, which I give you from a note I took of it at the time, and which has been preserved some how.

William Gibson, Crofts Court, Francis Street, London Road, Manchester, died at his step-mother's house, January 25th, 1854.

He was apprenticed to a master sweep in Haslingdon, and appears to have been treated most cruelly. He stated that his food was of bread which the beggars sold to his master. On a Sunday, when they had often very good dinners, he was denied what the other members of the family partook of. He had frequent and long journeys into the country, and was obliged to keep with the journeyman sweep, and forced to leave his heavy and badly fitting clogs at home.

Being at an early age put to this employment, exposed to rain and cold, often lodging in an out-house on straw, having no opportunity of drying his wet clothes, poorly fed and thinly clad, his health failed, and being of no more use to his inhuman master, he was sent back to Manchester with marks of most cruel neglect and treatment, having a large abscess on his back and one of his ears nearly torn off. In extreme suffering he lingered a few weeks and died. I need not point out the defects of the Act. It is lamentable that noblemen, magistrates, &c. refuse the use of the machine in their houses.

Examined by Mr. J. E. White, October and November, 1862.

Evidence collected by Mr. J. E. White.

Nottingham.

No. 3.

Mr. George Ruff, Upper Parliament St., Nottingham.—I am a chimney sweeper, and also own a shop here. Twenty-five years ago I was the first agent in this town of an association formed to prevent the use of climbing boys.

At one time soon after the Act (3 & 4 Vict. c. 85. 1840) their number in this town was brought very low. But lately they have very much increased. A few months ago I made out a list of 14 men here employing between them 21 boys; one employed 3. I have since found that I had omitted some. The boys are, I should say, between the ages of 8 and 14, with a few perhaps of 6 and 7. I am certain that unless something is done things will soon be as bad as ever. There is a competition here between those who use boys and those who will not, and an association of those masters who object to their use, has been formed to stop it. I have nothing to do with it.

The law against climbing boys is a dead letter here. At first a paid agent was employed by some gentlemen and ladies in the town to watch the sweeps, but he was given up, as he came to neglect the duty.

No prosecutions were brought till, as nearly as I remember, about 12 years ago, when Mr. Peter Hall visited this town, amongst other places, for the purpose, and he came at intervals afterwards, but has of late discontinued his visits. Some sweeps and one householder were convicted and punished, but several got off. The magistrates required evidence which it was almost impossible to procure, such as seeing the boy actually in or just leaving the chimney. Mr. Hall complained that after all his cost and trouble he failed here, in many cases on evidence clear enough to convict anywhere else, as, *e.g.*, seeing a boy enter a house without a machine and leave it with soot. He was however much dreaded by the sweeps, and as soon as his arrival became known by the railway policeman or any one seeing him at the station, the sweeps were all on their guard, and he had to employ a person unknown to watch the sweeps for him.

The use of boys is much encouraged by the fact that many householders will have their chimneys swept by boys instead of by machines. I have myself lost a great amount of custom which I should otherwise have, and some which I formerly had at large houses and public establishments because I will not use boys. That reason was not given, but I was not employed after I refused. I have been sent away even from magistrates' houses, and in some cases even by ladies who have professed to pity the boys, for refusing to use them.

However, to satisfy particular customers, and in order to be able to do jobs where perhaps one chimney out of a lot would need a boy, I did for a time try to bring up one of my own children to it, but my wife and I felt that we could not stand it any longer, and that we would sooner go to the workhouse than suffer what we did from it.

No one knows the cruelty which a boy has to undergo in learning. The flesh must be hardened. This is done by rubbing it, chiefly on the elbows and knees with the strongest brine, as that got from a pork-shop, close by a hot fire. You must stand over them with a cane, or coax them by a promise of a halfpenny, &c. if they will stand a few more rubs.

imbing Boys.
Nottingham.
Mr. J. E. White.

At first they will come back from their work with their arms and knees streaming with blood, and the knees looking as if the caps had been pulled off. Then they must be rubbed with brine again, and perhaps go off at once to another chimney. In some boys I have heard that the flesh does not harden for years.

The best age for teaching boys is about 6. That is thought a nice trainable age. But I have known 2 at least of my neighbours' children begin at the age of 5. I once saw a child of only 4½ years in the market place in his sooty clothes and with his scraper in his hand. I know that was his age. Some said "look at that little fellow, he is not 4." But one man standing by said "He's 4½;" his father (naming him) told me his birthday, and said that he began when he was 4, and that he would make a nice little climber."

Nottingham is famous for climbing boys. This is on account of the chimneys being so narrow. A Nottingham boy is or was worth more to sell.

A boy of about 7 or 8 years was stolen from me once. As he was in the street a man seized him from behind in his arms, carried him off straight to a lodging house, and stupified him with drugged tea. After the tea the child fell into deep sleep and lost all his appetite. An inspector and I traced him to Hull. The boy was so glad to find that "master" had come. The man had said that if they had got him to France, they should have had 10*l.* for him. There was another boy found with him.

The stealer was a sweep of Hull (names him); letters were found on him giving orders for more boys, and these letters were read before the magistrate. The prosecution was afterwards dropped, as the magistrates said that the man must be transported for kidnapping, if it were pressed. However he said he would not do it again, and paid more than 20*l* for the expenses. I would not keep any boys after that.

At another time, 3 climbing boys were missed here, and were traced by their masters and me to a cellar under the stairs where they were hidden. The eldest was not more than 10 or 11. They had been tempted away. They also were going to be sent to Hull to be disposed of there, I suppose by sending to France.

I know from my father of another case where a boy was stolen and sold to a chimney-sweeper. The facts are put into an account which I have by me. I have not heard anything of boys being missed of late years, as till lately they have not been so much wanted for climbing; but I have lately received information that a sweep of Retford has got a very little boy from the workhouse here.

Seven or eight years ago a boy was smothered in a chimney here. The doctor (naming him) who opened his body, said that they had pulled his heart and liver all out of place in dragging him down.

Since the law would not allow of apprenticing young boys, the plan has been to give so much money down to the mother on bringing the child, and so much a quarter afterwards, say a pound or two a year The boys are also boarded by their masters, but formerly at least, in miserable, dirty places.

Two journeymen whom I took were quite astonished at being put into a room with beds and sheets, and could not understand being obliged to wash. However after a while they came to like it. I think that some boys near here still "sleep black"; I hear them "dusting" in the morning.

Formerly the sweeps, as they said themselves, had 3 washes a year, viz., at Whitsuntide, Goose Fair, (October,) and Christmas. But now they are quite different. This is owing a great deal I think to a rule which we brought about of taking no orders after 12 midday, and washing then. The object of this was to let the boys go to school in the afternoon.

At first most did, but they do not now. A lady complained of this to me because she could not get her chimney done, and said "A chimney sweep, indeed, wanting education! what next?"

The day's work here generally begins at about 4 or 4½ a.m., and lasts for 12 hours, including going round for orders.

A man and boy together will earn in a fair full day 6*s.*, but perhaps one day they may sweep 20 chimneys, another half-a-dozen.

The younger boys are more valuable, as they can go up any chimney.

When they get too big to climb, which in town chimneys, is at about 15, or 16, in the large country chimneys a few years older, they are unfitted for other employments and often do nothing. Many active young men sweeps, have gone into the workhouse here after the spring cleaning up, to spend the summer in idleness and come out again for the winter work.

Nearly all chimneys can be swept perfectly well by machines, at any rate with only trifling alterations.

These can generally be made by putting in doors, which cost in common cases, about 6*s.* and in more difficult cases, when two doors are required, about 10*s.* 6*d.*

I have had great experience in altering chimneys to suit the machine, and was taken to several by the inventor of the machine, to have the mode explained to me.

In consequence I was called in to all the most difficult cases, and I have never happened on one which could not be altered without much expense.

Architects are often very careless in their construction of chimneys. The chimneys in the new registered lodging houses here, are cruel. These houses are 4 stories high, and their chimneys are then carried along through horizontal flues, under the floor of a lace warehouse of 4 stories above them. This is extremely dangerous, and there has been a fire there already.

In some houses chimneys are 14 × 14 inches, but in this town many, especially in houses lately built, are 9 × 12, *i.e.* less than the size required by the Act, viz., 9 × 14. But some are as small as 9 × 9 inches, and a lad of mine was once sent for a wager, without my knowledge to the top of one which the bricklayer who built it, and who was watching the wager, said was only 7½ × 7½ inches in the upper part. The lad was about 8 years old, but very small of his age.

October and November, 1862.

No. 4.

Mr. Thomas Clarke, Goose Gate, Nottingham.—I have been a chimney sweeper in Nottingham for 38 years; I am also a member of the Sweeps' Association here to prevent the employment of climbing boys.

When the Act against climbing boys was passed, about 20 years ago, there were 22 men and 22 boys in Nottingham. Within about 4 or 5 years after the Act there were no boys to be seen. But within the last 5 years they have increased very much.

Now in the town alone, not including the suburbs, there are 40 men and 27 boys. The 27 boys are owned entirely by 15 out of the 40 men. The remaining 25 use no boys whatever, but machines only.

From careful inquiries which I make when I have the opportunity, from sweeps and other persons coming this way, I find that the numbers of sweeps, men and boys, in Nottinghamshire and the neighbourhood are, as nearly as can be stated, as follows :—

In Mansfield 4 men and 11 boys; Worksop, at which place when I was last there, there was no machine, 7 men and 7 boys; Retford, the same number; Newark, 12 men and 12 boys; Southwell, 5 men and 5 boys; Bingham, 5 men and 5 boys; and in the remainder of the county and villages about, 12 men and 12 boys; and I believe that in Derbyshire the number of climbing boys is greater in proportion to the population than even in Nottinghamshire. I hear that in the town and county of Leicester there

Climbing Boys.
Nottingham.
Mr. J. F. White.

are but 10 boys, and with the exception of Grantham but very few in Lincolnshire, where the work is very wide, and men climb. I understand, however, that towards York and northwards, there are a large number, and that Newcastle is as bad as Nottingham, but that in the towns between here and London there are but few, and indeed with London itself fewer than there are in Nottingham alone.

The usual age at which boys begin now is from 6 upwards, generally 7. I began myself at a little over 5. There is a boy here now of about 6.

A crown or so is paid down to the parent, and in some cases a pound or so a year is afterwards paid, but generally nothing. I believe this is the rule throughout the country.

Besides this the boy is found in living and clothes, "black and clean."

They are generally the children of the poorest, and worst-behaved parents, who want to get rid of them and make a little money by it as well. It is as bad as the negro slavery, only it is not known.

Some even now "sleep black," as they used to do, but I cannot say that any sleep, as formerly, in "wall beds," *i.e.* a heap of straw, sometimes not "recruited" for six months, with stones built round, on which boys were put to sleep feet to feet, with their soot-bags over them.

I have seen 9 on one such bed.

Some sweeps used to wash on Saturday or Sunday, others not from one year's end to the other.

When a boy gets to about 12 he is too big for town work, where the chimneys are generally 9 by 12 inches, though some are 9 by 9, and wanders off as his own master into the country, where the chimneys are bigger.

I never knew one boy who knew his letters when he was first put to sweep.

I learned at an evening school when I was 15. At the present time, of the 25 men who use machines only, every one can read, and 11 can write.

Of the other 15 I believe that not one in 3 can do either. Again the 25 are mostly sober men, the others are men who drink hard. One has been convicted 34 or 35 times for almost every crime.

The training of the boys is very different. Some learn themselves without any trouble: I did, but all want a deal of coaxing or driving at first. I remember my first chimney well; I was told that there was a pork pie at the top. The masters used to carry a broad belt with a buckle round their waist to thrash the boys with.

If, as often happens, a boy is gloomy or sleepy, or anywise "linty," and you have other jobs on at the same time, though I should be as kind as I could, you must ill-treat him somehow; either with the hand or brush, or something. It is remembering the cruelty which I have suffered which makes me so strong against boys being employed. I have the marks of it on my body now, and I believe the biggest part of the sweeps in the town have; that, (showing a deep scar across the bottom of the calf of the leg,) was made by a blow from my master with an ash plant, *i.e.* a young ash tree that is supple and will not break, when I was 6 years old; it was cut to the bone, which had to be scraped to heal the wound; I have marks of nailed boots, &c. on other parts. It was a common thing with sweeps to speak of "breaking in a boy;" if he was hard, like a ground road or a stone, they gave it up. The other sweeps and I do not like to think of our children growing up to such a business.

I believe that in every respect except the sleeping department and washing, the condition of the boys is now as bad as ever as to treatment, perhaps worse, as the men who have boys are only the least respectable.

As regards selling, it is worse; I have known of 3 separate cases formerly in this town, where boys of 8 or 9 years old disappeared, taken no doubt by a man sweep, and I have heard of many cases of the same kind in Derby, Leicester, and other towns. But now this is scarcer, because as a master may not keep a boy, he cannot do anything to recover him. I hear from sweeps who come from other parts, that this is still the regular thing to this day. I have myself had several letters from distant places asking me to send boys, or to tell where one could be got. I had such a letter as lately as the last summer, offering to pay me well and give me a sovereign. The way it is done is this, to find some boy and tell him that you know of a nice place where there is plenty of food and clothes, deluding him all the while, and that you will pay his carriage, and so put him into the train, and the man would send the money. This is more done now, because boys may not be got from the union as they formerly were. Besides this, boys are "trafficked" about from one master to another, ten shillings or so being given for the "lent" of him, and whether the boy ever gets back or not depends often on whether he has a parent to intercede for him; in some cases they are not heard of for years, and sometimes never again.

Parents themselves go "hawking their children about." A woman was urging me the other day to take her boy, but I would not. A man near said "you shall have my two lads for nothing;" I have had others as young as 6 offered to me lately in the same way.

I am confident that if a stop is not put to keeping boys, before long it will be quite the same as it was in every way.

Besides all this, there is what the boys suffer from the employment itself; they must go barefoot even on the coldest winter mornings, as early, may be, as 4 o'clock, or the soot would shake from their trousers into their boots, and gall and fester their feet. I have often carried boys myself on my back, out of pity for them at such times. Then, in some, the climbing scrapes the flesh very much.

I found a boy of about 8 in the market who had run away from some place of correction, and offered himself to me; part of his knee caps got torn off, the gristle all showed white, and the guiders (tendons) all around were like white string, or an imitation of white cotton; his back was covered with sores all the way up. To harden his knees, a lotion made of old "netting" (*i.e.* urine kept long for the purpose) simmered with hot cinders, was put on them, and to make him hold his knees straight the while, he had a brush tail tied up and down his back, and something else like it in front, and he was made to walk in this way, 20, 40, or 50 times, up and down the room. He counted each time once up and once down, "one."

It was like killing him, and I had to stand by and see it all. However he was the clumsiest boy I ever saw, and had no activity.

Some use the water from a smithy in which iron is hardened, others, salt and water, but I think that is no good at all, but makes it worse.

I had myself formerly boys of as young as $5\frac{1}{2}$ years, but I did not like them; they were too weak, I was afraid they might go off. It is no light thing having a life lost in your service. They go off just as quietly as you might fall asleep in the chair, by the fire here. It is just as if you had had 2 or 3 glasses of strong drink.

A son of my own, as well as I myself, was very nearly gone so once; and I was a long while before I came round. At another time my son was nearly falling through a hole in a tottering chimney, and I had to go up to bring him down.

I have known 8 or 9 sweeps lose their lives by the sooty cancer. The parts (private) which it seizes, are entirely eaten off. There is no cure for it when once begun. The sooty warts may be cut out.

These diseases are caused entirely by "sleeping "black," and breathing the soot in all night. I have seen a piece as big as a bean on the front teeth in the morning. What they breathe when at work they spit out.

But what is worst perhaps in putting boys to climbing, is that it is putting them to crime. They learn a talk of their own which no one else can understand. The object of this, which has been the custom for

Climbing Boys.
Nottingham.
Mr.
J. E. White.

generations, is to enable them to deceive and defraud in all sorts of little ways, and from little they go to big. They must do this, because they get nothing as wages themselves, until they have been at it 4 or 5 years, and then perhaps they may get 6*d.* a week, but then they are generally leaving. The masters of course try to get them to a distance, to prevent their interfering with their own business; often they are not heard of again, or if they are it is through their getting into trouble or being sent abroad.

The use of boys for climbing seems to harden the women more than the men. Only lately a woman who had put her child to a sweep followed me and threatened to pull my hair for speaking against having climbing boys.

Machines will do the work well, and are not dear. A common one with iron fittings may be had for 25*s.*, a good one with brass fittings, which are much lighter, for less than 2*l.*, and the best with all extras complete, for 3*l.* With yearly repairs and all I have not laid out more than equal to two good new machines in 20 years, and parts of my first are still in use.

There may be chimneys which cannot be swept by a machine, but I have never seen one. If there is any slope at all it can be done by means of traps. If there were a large flat flue, as across the top of a hall, the chimney might require re-building. But if people only thought of what the boys suffer they would not have the heart to mind the expense of the small alterations of traps, &c. To enable the machine to work, there must be a trap, whenever there is a sharp angle in a chimney or flue, but with traps a horizontal flue may be cleaned as effectually as any others ; only a scraper, which for this purpose must be square, that for the chimney pots being rounded, must be used instead of a brush, to draw the soot out. After the soot has been properly loosened and fallen to the bottom of the flue, a large scraper will draw out at a time as much as a peck level full. But if the flue is flat for more than 3 or 4 yards, which is very uncommon, another trap may be needed. But I have lately cleaned with the machine a flue running level under the floor of a chapel for 7 yards.

A flue very seldom leaves the fire-place at a sharp angle. There is generally sufficient slope at this point to allow of working the machine without a trap there. If the flue does not turn up till it actually enters a wall, the wall must be eased off there enough to allow of a trap being let in far enough to allow the head of the brush to enter, and the rest of the machine can then follow.

I am just going to try a machine invented for cutting the hard cakes out of chimney pots, and believe it will succeed perfectly.

The best coal does not cake at all, and makes only a light fine soot. Cheap or small dust coal, especially if it be wetted for burning, cakes the most.

Chimney pots are not liable to be forced off by the machine, if they are in good repair.

Of about 24 boys between the ages of about 6 and 9, formerly taken out from the union here by one sweep, during a period of 15 years, there were only 6 or 7, or at most 9, who at the end of 15 years had not left England from having committed themselves, and got into trouble of some sort.

A very respectable sweep here, who opposes those who use boys, and who teaches in a ragged school, was lately followed by four of the sweeps who do use them, and assaulted by them for this reason simply. They called him an " informer," though he had not informed. The man was so hurt that he had to be in bed 2 or 3 days, and one of the men who assaulted him was sentenced to a fine or imprisonment.

While Mr. Hall used to come here as many I believe as 3,000 traps were put up in the town, and many chimney pots repaired. The sweeps were very much afraid of him, and would not send up boys, if they knew of his coming. He had a skilful way of catching the sweeps and getting proofs, and got several convicted, though others got off, as the magistrates said the proof was not quite clear. Our Association has just been following out a case where a boy was undoubtedly sent up, as the master of the house owned to us, but we have given it up, fearing we might fail in the proof, particularly if a lawyer were employed against us. We cannot afford the expense of a lawyer, and without one, we are never likely to succeed.

But if there were the money, one strict and prudent man could put down the use of boys, not only here, but all over England. I could.

If machines alone were used when the present lot of sweeps die out, as they must, *i. e.*, in a generation or less, the class would become a civilized and respectable set, as much so as any other ; and there is no reason in the employment why they should not.

It would be a great benefit to all as well as a great benefit to the town in stopping crime and vice. I have calculated the amount.

One of our Society who has gone well into the matter, says, that out of the 27 boys here, only 3 ever go to a place of worship, and that only 5 can read.

[I visited these two men at their homes in the evening, and found them with their families, which seemed well regulated and happy, one bidding good night to an infant child, the other teaching elder children. J. E. W.]

November, 1862.

No. 5.

Mr. Forgie, general mechanic, Nottingham.—4 or 5 years ago invented a machine for removing hard caked soot from chimneys, especially the pots, and less liable than the brush to loosen the pots, and gave one to a sweep, but he said there was not much need for it, and has neglected it, as witness believes because it did its work too well, and the chimneys would not want sweeping again so soon. It may be used wherever the machine can, and has been and may be still further improved.

He is now just putting it into the hands of another sweep to bring it more into use.

It has been tried and found to answer extremely well.

November, 1862.

No. 6.

Mr. Michael Browne.—I am a solicitor and coroner for the borough of Nottingham.

I remember two inquests which I have held, on deaths of climbing boys in chimneys. In one case when the master came with his boy to sweep the chimney, the fire was burning, and had to be put out, and something put over the still hot iron of the fire-place, to enable the boy to rest his feet upon at starting. I attributed the death in this case partly to the air in the chimney having probably not had time to become fit for breathing, so that exhaustion was more likely to follow. A hole was broken in the wall to get the boy out.

In the other case the master had lit straw under the chimney to bring the boy down, as he (the master) thought the boy was asleep, when in reality he was dead. These facts were proved before me.

I believe that the use of climbing boys in this neighbourhood, is becoming general again. This probably is encouraged by the belief of many persons that their chimneys cannot be swept as well by machines, and indeed many of the machines which are carried by sweeps do not appear to be in an efficient state.

Climbing Boys.

Nottingham.

Mr. J. E. White.

Another cause which no doubt contributes to encourage the use of boys, is, that magistrates seem unwilling to convict on such a charge, knowing in some cases that boys are used in their own houses.

I was present at the hearing of a case a few miles from Nottingham, where the prosecutor, who was employed by a society for the purpose, and wore a uniform provided for him by the society, was on his first appearance in the case, reprimanded by the bench for assuming a dress and an authority to which he had no legal right. It was proved that the sweep entered with a boy, and that a brush not that of a machine was seen put out of the top of the chimney. The boy was present and apparently not more than 9 or 10 years old, but the bench required the informant to produce strict proof of his age, refusing to assume that he was under 21. Advantage was taken of circumstances which seemed to allow of discredit being thrown upon the prosecutor's conduct in other parts of the case, and the sweep was acquitted. But the impression left upon my mind, and I believe on that of others in Court, was that the magistrates were unwilling to convict if they could avoid it, and it was mentioned in the justice room, as a fact, that the presiding magistrate had in his own house flues which would not admit of the use of the machine, and that boys were used instead.

Examined by Mr. H. W. Lord.

Cambridge.

Mr. H.W. Lord.

No. 7.

Mr. George Smith (Cambridge).—I conduct the Cambridge branch of the Cambridge and Huntingdon Patent Ramoneur business, and have done so now for some years. I have always taken very great interest in the movement to suppress the practice of sweeping chimneys by means of climbing boys. A medal was presented to me in 1852 by the committee, of which Lord Shaftesbury was chairman, to testify their appreciation of my exertions in that direction.

I sweep the chimneys of most of the colleges and public buildings in the town. I never use a lad under 21 for any purpose whatever, not even to carry the machines and help the men, as some profess to do when they really make them climb. I have taken every opportunity of letting servants and householders know the provisions of the Act. When I had shown them the Act they always were ready enough to have soot doors put in and dispense with boys. When it is necessary to climb young men over 21 always do it for me now.

There are still 3 boys in Cambridge who are employed by their master, their own fathers in every case, to sweep chimneys; two are very little certainly under 12, and the third is about 16. I have no doubt that they climb, but it is next to impossible to bring it home to them, for the proof is unattainable; it is 6 years since any attempt was made in Cambridge to obtain a conviction under the Act, and that failed for want of evidence; it was one of my men who had seen a boy's arm and breast out of the top of the chimney, but as he could not get into the house or see the face of the boy he could not identify him, so it fell though.

I was put to the trade at 6 years old in Windsor more than 30 years ago; my master there had 3 daughters little girls, who used to climb and sleep "black" just like the rest of us, and when they grew up young women they went about doing sweep journey work; they were always dressed in male dress.

We never changed our dress, so I never went to church or school, till one day the curate of a village near met me in the fields and he and a lady gave me some clothes. As soon as they left the place my master took my clothes away and sold them, but I had managed to learn something at Sunday school; at 14 I ran away bare-footed to Cambridge, and the first person I met here was that same curate who was a fellow of King's; he took me in hand again, and I have been here ever since.

I know Mr. Hall well; you will get correct information from him. I am afraid that there is still a great deal that wants remedying; those men that use the climbing boys are always the lowest and worse characters; still we don't like coming forward to prosecute, for it is said that we are only wanting to get everything into our own hands.

Examined by Mr. F. D. Longe, December 10, 1862.

Leeds.

Mr. F. D. Longe.

No. 8.

Mr. Thomas Howgate, Nelson Street, Leeds.—I have been a chimney sweeper in Leeds for 24 years. I began as a climbing-boy. I worked as a climbing-boy until I was 17. I worked for my father. I learnt to climb by going up chimneys with other boys behind me. I was 8 years old when I began. I was not hurt. I have no marks on my knees now. Lads were ill-used by their masters. I never had a climbing boy myself. I would not be bothered with them. I can do best without them. Sometimes I am asked whether I will bring a boy, and I say, No. I have been refused because I had no boy. The chimneys where I have been refused can be swept with the machine just as well as by the boy. Some of the sweeps here have climbing boys. A man at Woodhouse has 3 boys; they are all his own children. Another man, whom we call ———, has a climbing boy; he is his own child too. I do not know of any other sweeps who have climbing boys. My son is about 10. He goes to school at Mr. Wood's. I pay 9*d.* a week, sometimes 1*s.* for him. I like to have him at this school, because it is near, so we can get him when we want him. He is getting on very well. It would be cheaper to send him to the National School I know. The climbing boys were stopped here in 1843. There is no reason for having the boys except to save the sweep the trouble of sweeping himself. It is no hardship on sweeps enforcing the Act. We had an association here, but it has been broken up. Boys are always used here, I believe, at ——— House. If they could stop boys being used in this house they might be stopped everywhere else about here.

December 17, 1862.

Sheffield.

No. 9.

Edward Mason, No. 9 Court, Chester Street, Sheffield.—I have been a chimney sweeper 13 years. I began as a climbing boy when I was about 10. I worked for my brother. I use the machine, and have no boy. I have two brothers, also sweeps, they also use the machines, the cane machines. There are about 40 sweeps in Sheffield. Many of them have climbing boys, ——— ——— has 3 boys, his own sons; one of them about 10 years old climbs. ——— has two, his own sons; they both climb. ——— has one who climbs. The reason why the boys are used is that the landlords will not alter those chimneys which cannot be well swept with the machine, and the sweeps get more for sending the boys up the chimneys. When I climbed I was once stuck in a chimney in the Music Hall. I was there for 3 hours and a half. I was sweeping it, and I swept a large lump of soot down which stopped up the chimney, so that I could not get down. A hole had to be

Climbing Boys.

Leeds.

Mr. F. D. Longe.

made in the chimney to get me out. I was nearly suffocated. I was unable to speak for 4 or 5 days. Some boys are still ill-used. They are taken too young, some are taken at 5 or 6 years of age. My brother George has two boys; one about 8, and the other 11. He uses the machine too. ——— ——— son is only 6. He goes up. A few weeks back a policeman caught ——— ——— son up a chimney, and took the case before the magistrates, but he got off somehow (see next witness).

No. 10.

Thomas Wilmot, police constable, Sheffield.—I have been 6 years in the town. During that time I have only had this case of ———. I chanced to go into a public house in Queen's Street at about 5 o'clock in the morning, and I saw ——— taking a boy out of the chimney. I taxed him with having sent the boy up, he did not deny it, and went away with the boy. The superintendent summoned him. I went for the landlady to come as a witness, as she was present when the boy came down. Another sweep happened to be present too. The landlady would not come, but the other sweep did, and swore that the boy had not gone up the chimney at all. The magistrates warned the sweep and dismissed the case. I believe boys frequently go up in Sheffield, but it is impossible to find them out.

N.B. The superintendent told me that this was the only case he had had in Sheffield during the last 4 years.

Mr. H. W. Lord.

Manchester.

Examined by Mr. H. W. Lord.

No. 11.

Richard Stansfield.—Indeed I can tell you something about sweeps, for I have been one 35 years, and have climbed myself. Simpson, there, he had nothing of the life of hardships, for he lived with his parents, who took care of him. I went to sweep at 5 years old. I was so cruelly treated that I ran away. I went to Congleton, and Newcastle, and Chester, doubling back and so to Mold, and then I thought I was safe, but my master was pursuing a day behind me all the time. I had just hired myself to a man there and was thinking that they looked kind, and his mistress was giving me some tea, when I heard my old master's voice, and the tea choked me, I couldn't take another morsel though I was very hungry. He took me off at 5 the next morning. There was a league then between all the masters, and the sweep at Mold could not hold me against the other; we walked the whole way here without resting; he waited till we got to the forest, and then he nearly killed me.

I remember when I was grown up going in with a mate to a master's house in Salford, where we found him drunk and torturing a little boy; it was so common then that we didn't notice it particularly at first; he had one of his legs strapped up and was dragging him along, and thrashing him whenever he fell, even we got disgusted and told him to leave off; that boy died, he was murdered, and I and that other man were witnesses. Why, I myself have kept a lad four hours up a chimney when he was so sore that he could scarcely move, but I wouldn't let him come down till he had finished; it has often made my heart ache to hear them wail, even when I was what you may call a party to it.

In learning a child you can't be soft with him, you must use violence. I shudder now when I think of it. I have gone to bed with my knee and elbow scabbed and raw, and the inside of my thighs all scarified; we slept 5 or 6 boys together in a sort of cellar with the soot bags over us, sticking in the wounds sometimes; that and some straw were all our bed and bedclothes; they were the same bags we had used in the day, wet or dry. I could read, and we used sometimes to subscribe for a candle to read by when we were in bed. I have seen the steam from our bodies so thick as to obscure the light so that I couldn't read at all. Dozens die of consumption; they get up about their work in all weathers and often at 2 and 3 a.m. They are filthy in their habits; lads often wear one shirt right on till it is done with. I have been for 15 months without being washed except by the rain; why I have been almost walking away with vermin. Not so now, Sir! you come with me at 9½ any night you choose to a place not 200 yards from this, and you'll see for yourself. There is a man's own son in Salford who has never washed since he was a sweep.

They never go even to a Sunday school; in some places they are locked up as prisoners all day Sunday for fear of the neighbours seeing them.

Such things ought not to exist in a Christian country; this degraded condition is owing mainly to the machines not being used universally. The lads would not come to it then till they had had some teaching, for only strong fellows can manage the machine. As it is they have from the first to associate with the lowest men; the masters, as a class are illiterate, selfish, narrow, and brutal that we found out, if we wanted opportunity, in our "Mutual Improvement Society," which was given up some 9 months since. Most of them would use boys, aye, and treat them to-day just as I have described the treatment of 20 years ago, if they dared, even in Manchester, but some of us are barriers yet. I spoke out to some of them lately and said, "If any climbing "boy comes under my notice I shall not wink at it." But as for the Act it is next to nothing; we can't afford to prosecute, and the magistrate don't convict when we do; some of us actually got into a house where a boy was being used once, but the man somehow got off. My boy is at a printer's, but if I had chosen I could have learnt him and defied the Act altogether.

Machines will do all that is necessary if they are used with a will in a proper way; all they want is to be worked about. If I could take two lads, one in one week with a machine and the other in another week climbing, neither of them knowing anything about my plan, I would guarantee the machine to do more than the climbing lad, taking one chimney with another; when there is a bend in the flue it requires more pains and longer time, and sometimes a soot-door.

I recollect once going to a kitchen chimney that smoked; we had on 70 feet of the machine and could not get the soot down, so I stripped and climbed myself, and found at the end of a long turn half a load of soot, the accumulation of years, which might have always been reached by machines, with a little trouble, but the sweep had chosen to shove it away from time to time into the bend, and then all our working only packed it tighter.

I, as a practical sweep, and having had experience of many years, both in climbing and machine sweeping, do denounce the system of climbing boys, as wholly bad and needless.

Manchester.

No. 12.

Mr. Simpson, Port Street, Manchester.—I am a master sweep; have been years in the trade; it is 11 years since I last used a boy to climb. There are over 100 master sweeps in Manchester, and about 20 climbing boys somewhere amongst them. If anything were to happen to Mr. Wood of Bowden, who keeps a sharp look-out after them, there would be 50 or 60 boys, I have no doubt.

Climbing Boys.

Mr. H. W. Lord.

It is mere laziness and prejudice that keep any of them to using boys. The machine requires working about to make it do the sweeping properly ; it is much easier to stand below and send a boy up the chimney. I can give you an instance ; I sweep the chimney for the Branch Bank of England ; the kitchen chimney at one of their agents, is quite straight, and has a door for the jack to work from over the chimney piece. When I first went there I swept it of course with a machine, and the cook was quite surprised, and told me that the man who used to come always sent his lad up and did not get so much soot as I had.

There is a great antipathy to the machines among the older masters, and the journeymen who go about with the boys working, as is frequently the case, for masters who were never apprenticed to the trade, and know nothing about it, speak against the machine to save themselves the trouble of using it ; they work with locked doors, so that no one may see what is done.

I have no doubt that if it were not for Mr. Wood, and in a less degree, for some few of the masters who are scholars and Christians, and would keep fighting against it, all the horrors of the climbing system would be as prevalent now in Manchester as ever. It is not generally the fault of the public now ; not one in a hundred asks me to bring a boy now, but when I first left off having boys I was often forced to borrow one from another master to sweep the chimnies of people who would not trust machines.

In the country they are as bad as ever, and in many large towns too, in Rochdale and Blackburn especially ; I know of two sweeps here who have sold their own sons for 1*l.* a year to a master sweep at Worksop. I call it selling, for that is what it comes to: they are quite children still, and they will have to work as long as they can climb, until about ; that is how they are treated, and what they have to undergo in learning to climb, Mr. Stansfield here will tell you ; I got him here on purpose to see you, he has been all through it himself. That master at Worksop is a very religious man they say ; I saw him here at the last Temperance Alliance Meeting, when he said he had come to look for 2 or 3 more boys ; he did not make any particular concealment about it. There is no binding now, and no league among the masters to return boys that left their place as there was once.

One great reason of the thing continuing is the cost of prosecuting. The few of us who would like to put it down can't afford the expense of summonses, and solicitor, &c., and the half penalty which the Act gives, is no use at all, for it is never paid; they go to prison like winking, they don't care ; at all events, the term of imprisonment should be lengthened, and be from one to 3 months ; when it is for 3 days, as it often is, the day of conviction counts one, and the day of liberation another, though they are out the very first thing in the morning, so that they really have but one day. The magistrates seem always disinclined to convict. Mr. Wood has had cases where children of 12 and 13 had been climbing that were dismissed because of his not being prepared with formal proof of the lad being under 21. There has only been one time since Mr. Ellison has been magistrate here that there have been prosecutions under the Act ; on that occasion, Mr. Wood had 3 of them, but when he got to the Court he found all 3 in the dock already charged with some other offence, on which they were convicted, so he did not go on with his.

There is something very strange about the law of it ; if the "commitment" isn't paid, the prisoner is liberated at once, though he is sentenced. It was so in the case of one ———, before Mr. Trafford, in Salford, 2 years ago, to my certain knowledge.

Any chimney can be swept by machine if the soot doors are arranged properly. A great number of the largest buildings in this town, public and private, have had to have them fitted, and they succeed. The expense varies of course with the kind of door, one over a drawing-room mantel-piece would differ from one in a garret, but they can generally be kept out of sight, and are never costly.

I sweep the chimneys at the Infirmary, the Branch Bank of England, the Queen's Hotel, and Messrs. Barbour's, Messrs. Penders, and Mr. Mendal's warehouses among others; in each of those buildings there are soot doors in some of the chimneys, more or less ; there is no case in which it could not be so contrived, that the use of boys to climb should be abolished.

[On a subsequent night, at about 10½ p.m., I accompanied the witnesses Simpson and Stansfield to some cellars where they thought we might find some boys "sleeping black"; so far as the boys were concerned our visit was unsuccessful ; my companions said that my inquiries had been heard of and the "birds had flitted" ; in one place, however, I saw what they informed me was a specimen of the habits of the ordinary journey sweep, and at the same time an illustration of the practice, for instances of which I was in search, though there happened to be no climbing boy present.

I followed Stansfield down some broken stone steps into a dirty and ill-drained area in a district of Manchester, where a dense population is closely packed in small and crowded dwellings. He entered a door, and after some delay returned and took me in with him to a low-pitched unsavoury cellar ; the only occupants of which appeared at first to be a woman and two little girls in ragged clothes. After some little time I discovered by the fire light, there being no candle, a small bedstead, which with two wooden three-legged stools and a table constituted all the furniture of the place ; on it was a mattrass, and on the mattrass a black heap, which ultimately proved to be a young man who was sleeping underneath the blanket which he used to catch the soot in his trade of chimney sweeping ; he and his blanket were both quite black, and that blanket I was told was the only bed-covering for his wife and two daughters who were then preparing to join him ; I certainly could see no other.

Simpson told me that the stench there at times was enough to knock him down, and that he would never go inside, but kicked at the door and smoked his pipe outside till some one came.

The delay which elapsed before I followed Stansfield was owing, he afterwards told me, to his having to concoct a story of my being a detective inquiring about a supposed murder which had taken place near where he and the other had last been sweeping together. He said that he would not have ventured to take me in there without some such excuse.] (Signed) H. W. Lord.

Burslem.

Mr. F. D. Longe.

Examined by Mr. F. D. Longe,
November 11, 1862.

No. 13.

Mr. Francis Peacock, Club Buildings, Burslem, Staffordshire.—I have been a chimney sweeper all my life. I began about 13, in Longton. For the last five years I have been employed by an association for the suppression of climbing boys. I have been sent by the association through the seven midland counties, Staffordshire, Derbyshire, Nottinghamshire, Leicestershire, Warwickshire, Northamptonshire, Lincolnshire. I was sent about to find out in what places, and what number of climbing boys were used.

Climbing Boys.

Mr. F. D. Longe.

In every county except Staffordshire there are quantities of boys employed at very young ages; many as young as 7. In the Black country, too, in South Staffordshire, particularly in Wolverhampton, there are lots employed. In the Potteries, there is not a single climbing boy. You may take that as a fact. There is not a boy in the Potteries who could go up a chimney. We have had good gentlemen here who have put it down. Mr. Wedgwood of Etruria, has done very much. There were 20 climbing boys in the Potteries 5 years ago. Mr. Wedgwood employed inspectors, and he was assisted by the magistrates, and the police. There were several prosecutions, several housekeepers were fined 5*l.*, and sweeps were sent to gaol for 1 or 2 months. I think it is a disgrace to this country that little boys should be used. I have had lots of cases at Wolverhampton, but the magistrates would not convict. I tried 15 cases at the least, clear cases, and the magistrates would not convict in a single case. The sweeps say that the machines will not sweep the chimneys, and the magistrates believe them. They rather believe the lies of these sweeps than the statements of the respectable men who are employed by the association. The objection that the sweep has to the machine, is not that they won't do the work as well as the boys, but that they can't do it alone; the machine requires the man, but the boys can sweep chimneys without the man being there at all; so if they can use boys they can be idle themselves.

I have paid particular attention to the construction of chimneys in various towns in England. The law is not obeyed in the building of these chimneys. If chimneys are built according to the Act, they can be swept by the machine. The old chimneys can easily be altered at a light expense. There are very few chimneys altogether which cannot be swept by the machine. There are a great many bad chimneys here, in the Potteries, but we have got the machine made to fit them. Machines can easily go round angles, if they are well made and properly worked. The machine does its work much cleaner than the lads. I used to employ five or six lads myself, from 6 or 7, upwards. I have bought lads myself. I used to give the parents so much a year for them. Sometimes they got 5*l.*, sometimes 50*s.*, and sometimes they let you have them for nothing at all. In Liverpool, where there are lots of bad women, you can get any quantity you want. The last lad we had here I got from Stockport; he was 6 years old. No children could be got in the potteries. There are no lots of bad women here as there are in the big towns; and besides, the Potteries give too much work for children, for parents to want to get rid of their boys to sweeps. I do know, however, of 3 cases at Tunstall; these were two women, not married, who sold their boys to a sweep here.

Mr. Herries, of Leicester, has got 23 cases of boys who have been killed in chimneys, by being stifled, since 1840.

I can myself do as many chimneys in a morning with a machine, as a man can do with a climbing boy, and get as much soot.

Those chimneys which the machine will not sweep are those in which the angles are too sharp; it matters nothing about the size of the chimneys.

I can make 2*l.* to 2*l.* 10*s.* a week by the machine, working from 8 to 9 hours a day, beginning about 4 o'clock in the morning.

I am now sweeping from 18 to 20 chimneys every morning before breakfast. Every sweep in the Potteries uses a machine; a good machine will last 2 or 3 years. They cost about 2*l.* to 3*l.* for long chimneys.

The knees are hurt by the bricks. We have lost two men who have died lately from "sooty wart" from going up chimneys.

It was a great blessing to me having the Act carried out by the gentlemen here. It prevented my working boys in a way that I was ashamed of.

The reason why the Act is not more generally carried out, is simply this,

A magistrate sends for a sweep to sweep his chimneys, and tells him to do so with the machine. He comes, puts the machine up, and tells the cook or other servant that it can't be swept with the machine. This the master (magistrate) believes at once. So next day the boy goes up, and then if a case comes before this magistrate he won't convict.

There is nothing in the world wants putting down so much as these climbing boys. It is the greatest cruelty in the world. It is not necessary that any boy should be used at all in their trade. All that is wanted is that he should begin about 16 to watch a man using the machine.

No. 14.

Mr. George Parkinson, Miles Bank, Hanley.—I have been a chimney sweeper 17 years. I used to employ boys 7 or 8 years back. Since that I have not had any boys. I do not know any sweep in this town who has climbing boys. The sweeping is done by the machines. There are some chimneys which cannot be done by the machines. Those chimneys must either be swept by somebody going up, or they must have trap-doors put in.

I go up sometimes myself, but not more than one chimney in the week, some weeks. I sometimes have to go up a dozen chimneys in the week. All the chimneys in this town can be managed either by the machine or by our going up ourselves. I do not think boys are wanted at all. The chimney which would require a boy would be one which was too crooked for the machine, and too small for a man, and these chimneys ought to have trap-doors.

There are few such chimneys about here without trap-doors. It is very foolish of the owners of the houses not to have trap-doors put in, for they are not expensive. And if there is no trap-door, we have to try and sweep the chimney first from the bottom and then from the top, and we always charge more for doing these chimneys, and then can't do them well.

There are 3 master sweeps in town, my father, myself, and another man. My father and I employ 2 men, one 31 and the other 23 years of age. The latter is a big man, the former is a cripple; he has been a sweep 25 years; his legs are crippled, I think from having been employed so young; he began when he was 5 years of age.

It is in gentlemen's houses, generally, that the chimneys are the worst. There are a lot of chimneys all brought together by sharp bends, to join the stack at the top. These bends are all up high in the cock-loft, where trap-doors could easily be made. There are also bends at the bottom of these chimneys sometimes, but they do not prevent the machine going up. I believe ——— at Burslem has had a boy with him this last fortnight, but I do not know that he sends him up chimneys. I do not know how old the boy is. A man cannot do more work with a boy than with a machine. Boys ought not to be employed at all. The law ought to be that no boy should be allowed to come into the house at all, when the man goes in to sweep the chimneys.

Stoke-on-Trent.

No. 15.

Mr Joseph Price, Market St., Stoke on Trent.—I have been a chimney sweeper for 19 years. I began as a climbing boy. I was taken out of the Bastile (workhouse). I don't know how old I was, perhaps I was about 9 years old. I do not use any boys now to go up chimneys. I use my own boy to carry the machine for me; he is 9 years old next Christmas. (This boy had on two occasions, in the absence of his father, told me that he never went up chimneys.) I do not know of a single chimney sweeper in the Potteries who uses a climbing boy. There may be a boy used on the sly by a sweep in Longton.

Climbing Boys

Stoke-on-Trent

Mr. F. D. Longe.

There are a great many chimneys which the machine cannot sweep, and if they are not altered they cannot be swept properly. And this is the reason why many houses are burnt down. In chimneys, too, which can be swept by the machine, the soot sometimes gets caked, so that the machine cannot sweep it down. The sweep cannot know of those cakes while sweeping the chimney with the machine. I am certain that boys can sweep chimneys more effectually than the machine. The soot cakes so hard sometimes, that it is hard to get off with the scraper.

I knew Frank Peacock (former witness at Burslem); he is employed to stop boys going up, so of course he says that boys are not wanted; but I engage to say that 99 out of 100 sweeps throughout the country, will say that chimneys cannot be swept so effectually by the machine, as by boys. For all that I never use a boy. There has never been a fire in Stoke from a chimney having been badly swept, since I have been here. The machine must leave the soot that is caked, but at the same time it would not leave such a quantity, that would, if the chimney was a good chimney, cause any danger to the house. The chimney might catch fire after it was swept by the machine, but there would not be much soot left, *i.e.*, if it was a good chimney for the machine. I have swept chimneys first with the machine, and then gone up, and got down more soot after the machine than I got down with the machine. In these cases the soot was caked. Damp causes caking, and some coal cakes more than other coal. I do not like boys climbing, though I have been up myself. There is so much cruelty used towards them. The men will force them through places that they ought not to go, and that is how so many boys have been smothered. The worst that can happen from not using boys is, that in some case when the soot is caked, the chimneys will catch fire after they have been swept by the machine. If chimneys were all altered for the machine, boys would not be wanted at all to go up, and if the chimneys were swept regularly there would be very little danger of much soot being left by the machine. But a great many gentlemen will not have their chimneys altered, and that is the reason why a great many boys still go up. Many gentlemen will give the sweep 6*d.* or 1*s.* extra to have the boy sent up. It has been offered to me several times, I have not taken it, but swept the chimney as well as I could with the machine. The chimneys in big houses are the worst, because there are so many chimneys running into the stack. If gentlemen were to stop it in their own houses it would soon be put down altogether.

November 12, 1862.

Stoke-on-Trent

No. 16.

Mr. Thomas Hulse, 2, Thomas St., Stoke.—The reason why there are so many more sweeps in Nottingham than in the Pottery towns is, that the houses in Nottingham are so much higher than in Potteries. I can sweep 18 or 19 chimneys before breakfast, if the chimneys are small as in these towns; but in big towns, such as Nottingham and Liverpool, where the chimneys are very high, I could not do more 8 or 9 in a morning. Long chimneys are no more difficult to be swept by machines than short ones; they only require longer machines and take more time. I mean, course, if the chimneys are properly built for the machine. Supposing that all chimneys were altered for the machine and that all new chimneys were built properly, the machines would do the work as well as the boys, and then the law ought to be put in force against sweeps whenever they send boys up. If I was caught sending a boy up, I should not think it hard that the law should punish me. The law ought to be put in force through the whole country. When the soot cakes it is generally at the top of the chimney in the pots where the damp gets at it most. The machine would never leave enough soot to be dangerous if the chimney was properly built.

I was one of the association to which Mr. Peter Hall belongs. The association has been broken up here some time because it is no longer wanted. Neither I, nor Mr. Price (last witness), are in connexion with any association now. It would be hard to prevent sweeps having boys with them at all; they are so useful for carrying the machine, knocking people up, &c. A bag of soot weighs 100 cwt., and that is as much as a man can well carry, and a sweep would much rather have his own child with him, say a boy of 13 or 14, than a man over whom he has no power, and whom he cannot trust not to pick up anything. But it is bad for sweeps to have little boys, because they are so easily tempted to send them up.

November 14, 1862.

Preston.

No. 17.

Mr. John Horsfall, High Street, Preston.—I have been a chimney sweeper since I was 7 years old. I began as a climbing boy. I was taken out of a workhouse in Yorkshire.

I think climbing is improper work for boys, and I for one am quite ready to have it stopped. I was fined 7*l.* for using a boy once. I have my own boy with me when I go out. He is 13 years old. He carries my machine and helps me. The reason why boys are used is that owners of houses like to have their chimneys swept by boys rather than by a machine, so men often keep a boy so that they may not lose such customers. There are nearly 20 sweeps in Preston. There are a great many too many. Five of these have their sons with them; all these boys can climb; a chimney is not a proper place for a human being to be sent into at all.

GLASGOW.

Glasgow.

November 19, 1862.

No. 18.

Mr. T. Campbell, 122, Argyle Street.—I am a chimney sweeper. I was the first to get the licensing system introduced. It has worked very well. I employ five men besides myself sometimes, and I have taken out six licences. I am responsible for the conduct of these men. The system ensures honesty among the sweeps. No one is allowed by the Municipal Act to employ a sweep without a badge. This Act has been in force about 10 years. There have been over 300 licences granted altogether, to sweeps and slaters. There are now about 100 sweeps in Glasgow solely dependent on their business. I should prefer an annual licence. We have an annual soirée which is generally attended by nearly all the sweeps in the city.

If a chimney goes on fire within six weeks from the time it was swept the chimney sweeper is responsible, and has to pay the firemen and the police penalty.

If it has not been swept for six weeks the proprietor has to pay.

Chimneys in Glasgow are generally swept about four times a year. Some are swept more often. The rate of prices fixed by the Municipal Act are generally kept to. I do not think there are 50 chimneys in Glasgow at this time which cannot be swept by the machine, nor is there a single chimney which could not be swept by the machine if it was altered. Notwithstanding this, every day there are one or two boys up chimneys. The reason is that the owners of some chimneys will not go to the expense of having

Climbing Boys.
Glasgow.
Mr. F. D. Longe.

them altered, but rather ask the sweep to send a boy up to sweep them. I have not had a boy since 1847. If I meet with a bad chimney I should refuse to sweep it, unless it was altered. I used to climb chimneys myself for 10 years.

The great evil was not so much the going up the chimneys but the ill usage of the boys by the masters.

The reason why sweeps use boys to climb instead of using the machine is that it is such easy work for him. He has nothing to do but stand at the bottom and talk to the cook.

This is all sweeps had to do before this Act. Now he has to work himself with the machine. Until 1847 boys were regularly used in Glasgow as in other places. Sweeping chimneys with the cane machine from the bottom is much harder work than sweeping with the rope machine.

No. 19.

Mr. Henry Black, chimney sweeper, 71, Stockwell Street, Glasgow.—We sweep chimneys in Glasgow with a machine, which consists of a brush with weight attached to it, and a long rope. We let the machine down from the top of the chimney, and pull it up and down till the chimney is swept. We go up to the top of the chimney through the hatchways, The boy remains at the bottom and holds the cloth, while the man sweeps the chimney from the top. We have canes too, but they do not do the work so well and we seldom use them. There is only one boy under 12 in Glasgow who goes with a sweep, and he scarcely ever goes up. The owners of the houses here are themselves very strict and will not allow boys to go up. Every chimney sweeper, boys as well as men, must have a licence and a badge. The badge and license cost 7*s.* 6*d.* A man cannot get a licence without a certificate from two respectable persons that he is an honest man.

November 17, 1862.

No. 20.

Mr. Thomas Hastings, 70, Rutherford Town, Glasgow.—I have been a chimney sweeper 30 years in Glasgow. I have 2 sons. Both learnt to climb; they are now grown up. I have no boys now. I can get on without a boy. I never used a boy since the law. Some sweeps in Glasgow do. In country houses the chimneys could not be swept by the machine unless the sweep made a hole through the wall.

Sometimes, too, the ball machine sticks, and then it cannot be got out without a boy. There is a chimney in the Bridewell which cannot be swept by the machine. If the chimneys were all altered there would be no difficulty, and no boys would be wanted at all. I only know of 1 or 2 boys who climb in Glasgow.

November 28, 1862.

Newcastle-on-Tyne.

No. 21.

Mr. T. Webster, 43, Westgate Street, Newcastle-on-Tyne.—I have been a chimney sweeper 18 years. There are about 14 master sweeps in Newcastle. There are boys employed by some of these sweeps, who climb every day. They are of 8 years old and upwards.

They generally are not the children of the sweeps who use them, only 2 have children of their own. ——— in —— Street has 3 boys. ——— has one. ——— has one. ——— —— has one. ——— has one. ——— has one or two. Besides these 14 sweeps there are others, young lads, who go about picking up jobs.

I do not use a boy myself. I do my work with a machine. Almost every day I am refused because I have no boy. I was refused yesterday in Wellington Street by a woman. She was the owner of the house. I have swept that chimney before with the machine. It could be done well with the machine, it could be done either with the rods or with the ball. I have come across chimneys which could not be swept by the machine unless trap-doors were put in. Plenty of chimneys are not swept in this town for 2 or 3 years. There is no regular time kept at all for sweeping chimneys.

I think most of the climbing boys belong to this town. They are hired by the twelvemonth. They are not hired by the week, because other sweeps would offer their parents higher wages, say 2*s.* instead of 1*s.* 6*d.*, and so get them away. The sweeps who have boys often send them to do work by themselves, and the boys can thus sweep a chimney without the man being at the bottom at all. Some of these sweeps have given up carrying the machine altogether. There are a great many people who will not have their chimneys swept by the machine. It is hard work carrying the machine about, but with the climbing boys the man has no labour at all hardly. A chimney can be swept quicker by the machine. I could sweep two chimneys while a boy was sweeping one. I was a climbing boy. I learnt to climb in Glasgow. It is tyrannizing work. I have marks now on my elbows and knees. When Baker was alive, who was a sweep here sent down by the Quakers to look after the boys, the boys were nearly put down, though a few were still used on the sly.

Baker has not been dead 2 years, and we are nearly as bad as ever we were under the old system.

No one looks after the boys, and they are regularly used.

November 20, 1862.

No. 22.

Mr. James Frame, Percy Street, Newcastle.—I have been a chimney sweeper 21 years. We sweep chimneys in Newcastle by boys and also by the machine. I have 4 boys. The youngest is 10. The eldest is 16. The little one is a nephew of my wife's. The boys are necessary when the chimney cannot be swept by the machine. The other 2 boys are about 14. We have the eldest boy for 9 years. We got him from his father who goes about begging. His father comes to us about once or twice a year for money. We provide our boys with clothes and food. The two boys of 14 are both Newcastle boys. One of them, —— ——, was the son of a woman living near here. She was not married. She died, and (he) was taken into the workhouse. He would not stop there but got out, over the wall, I think, and came to us. We agreed with his uncle to keep him. We had two boys came to us yesterday wanting to be employed. They were about 12. I climbed chimneys myself for 10 years. If the chimneys were all right we could do with the machine. I never did without boys altogether. Most of the sweeps in Newcastle have boys. One of my boys was stolen from me some time back and taken to Darlington. He was induced by another sweep to go away with him. I am quite certain that Baker used to use a boy himself sometimes; he borrowed one from some other sweep. Baker died from working hard and drinking. I have two sons besides myself who use my boys.

Climbing Boys

Newcastle-on-Tyne.

Mr. F. D. Longe.

We have both the rope and the cane machine too. The boys are taught to climb by sending them up a chimney with another boy behind them who knows how to climb.

Their arms and knees get sore at first, but they get hardened. I never heard of using brine or any other stuff of the kind to harden the skin.

I was apprenticed by regular indenture for 7 years at 7 years of age.

We always have a written agreement between ourselves and the boys' friends.

When they run away we get them back. I got the police to help me to get my boy back from Darlington.

The boy's mother wished him to come back here. The boys can always run away if they like.

We always send them to school on Sundays.

Wolverhampton.

No. 23.

Letter from Mr. Longe, Assistant Commissioner.

Wolverhampton,

Gentlemen, 14th Feb. 1863.

It appears that the Act of Parliament prohibiting the employment of boys to climb chimneys for the purpose of sweeping them has been all along a dead letter in this town. No movement seems ever to have taken place on the part of the inhabitants either to enforce the law or to encourage the use of the sweeping machine. Two chimney-sweepers have been in the habit of keeping several little climbing boys, and employing a few young men to go about with them. A. has at the present time five boys, whom I found in his house. I have been informed that these boys are all under 14 years of age; one being under 10 years of age. B. has four boys, all (as I am informed) under 14. Besides these two there are six other chimney sweepers in the town. Some of these men came to me, and made the following statements: "We wish "to have the law carried out which prohibits the use "of climbing boys. The system of sweeping chimneys "by climbing boys is very hard upon us. Having "been brought up to this trade, and used as climbing "boys until we have grown too big, we are turned off, "other little boys are taken in our places, and we are "not able to get a livelihood. We all wish to use the "machine only. There are a few chimneys in this "town that cannot be swept by the machine, but they "can be easily altered. These are the wishes of all the "chimney sweepers in this town, except —— and "——. We have two machines between us, but should "get more if it was worth while. We use boys ourselves "now, sometimes; but we do not wish to do so, for "the boys' sakes as well as our own."

I believe the use of climbing boys is generally encouraged by the inhabitants of this town. I believe the boys have been very well treated. A. allowed that the law might be carried out here as in other large towns, and that it was very unfair that it was not carried out. The following evidence will show how entirely the law has been ignored in this town.

I have, &c.

Francis D. Longe.

To the Commissioners.

No. 24.

Captain H. Seagrave, Chief Constable of Wolverhampton police.—During the last five years no information has been laid against any chimney sweeper before the magistrates of this borough for employing climbing boys contrary to the statute. I believe, however, that climbing boys always have been and are now very generally used. No steps have been taken to my knowledge to put the practice down. The police have no orders to take any cognisance of these offences; but I do not know that the police have ever observed boys being sent up chimneys. If they had, they would probably have reported it. We have never had any case of a complaint by a sweep's boy against his master. I know that Dutton was well known to be very kind to his boys. There is no byelaw requiring sweeps to have badges or licences; but we have a byelaw imposing a penalty on any householder whose chimney catches fire, provided he cannot prove that it has been swept within a reasonable time previously.

No. 25.

Mr. Thomas Balton, clerk to the magistrates of the borough of Wolverhampton.—I have been clerk to the magistrates of this borough for about 14 years. I do not remember more than one case where an information was laid against a chimney sweeper for sending a boy up a chimney. I believe that information was laid by a person employed by an association, a stranger to the town. So far as the authorities and inhabitants of this town are concerned, I am not aware that any steps have ever been taken to carry out the law; and I believe that boys always have been and are now generally used to sweep chimneys as if there was no law whatever against it.

No. 26.

Mr. E. J. Purnell, surveyor for the borough of Wolverhampton.—I have been surveyor of this borough for six years. Our book of byelaws and parliamentary enactments does not contain any clause regulating the construction of chimneys with reference to their convenience for being swept. I was not aware of the Act of Parliament which requires chimneys to be constructed in a particular manner in this respect. That Act of Parliament has never been brought to my notice, nor have builders ever been required to observe it. When building houses in this town I know, however, that all the chimneys in houses lately built in this town are capable of being swept by the brush and canes. I have never been required to carry out the Act which requires chimneys to be altered or furnished with trap doors, if they are so bent that they cannot be swept by the machine.

No. 27.

John Mason, keeper of the Town Hall, Wolverhampton.—I have been six years in this office. The chimneys in the Town Hall have always been swept by boys, with the exception of one chimney, which is too small for a boy to get up. About six years ago a man of the name of Peacock came here and laid an information against Dutton, and I think against another sweep also. Dutton was convicted. Since that time no steps have been taken to prevent boys being used to sweep chimneys. In my opinion the chimneys in this town are generally swept by boys.

No. 28.

Mr. —— Dutton, chimney sweeper, Castle Street.—I have three journeymen and three boys. I very seldom sweep myself. Each journeyman takes a boy with him. He pays me something for the boy and gives me the soot. I also have machines, which they can have if they like. It is no advantage to a sweep to have more than one boy. A boy cannot sweep a chimney alone. I think the persons who got the law made did not know enough about the business. Before the chimneys in Wolverhampton could be swept

limbing Boys. Volverhampton. Mr F. D. Longe.

by the machine more than half the chimneys in the town would have to be altered or rebuilt. In the first place there are many chimneys which have ledges or air holes at the bottom, which are necessary to cause a draught in the chimney. These cannot possibly be swept by the machine; they are out of reach for a man to get at from the ground; and the chimney is too small at the bottom for a man to get up. The boy has only to get up a little way; but then the law says he mayn't go up at all. Then a great many chimneys are too wide for the machine. After these chimneys have been swept by the machine a boy will get twice as much soot out as was got out by the machine. A great many chimneys have bends in them that prevents the machine going up; and if the machine does go up it only sweeps the upper side, and does not touch the soot on the lower side. Then if the machine sticks in the chimney how are you to get it out without sending a boy up. In gentlemen's houses the chimneys are always brought to a stack in the middle, and gentlemen will not go to the inconvenience of having trap doors made in the walls of their rooms. Then lots of chimneys have slates or tiles put at the top instead of chimney pots. If the machine is pushed out at the top the bristles spread out, and the machine often cannot be got back again without breaking the slates; if the machine is not pushed out, it drives a lot of soot up to the top and leaves it there. And the top of the chimney is always the worst part to sweep, as the soot cakes; and if the soot is not got out the chimney will soon smoke. As for getting out on the top, that would be impossible. We should have to take ladders with us. We could not do one job in the time we do 20 now; besides, people don't like to have sweeps running about the tops of their houses.

No. 29.

Joseph Allen, climbing boy.—I am going 13. I have been two years with ———. My father is a locksmith; he lives in Union Street. ——— pays him 1*l.* a year for me. I have a younger brother, John Allen, going 10, also with ———. There are six of us altogether, three little ones and three big ones. The two little ones are both younger than me. I do not mind climbing chimneys; it hurt my knees at first, but they got hard after a time. We always have meat for dinner; we don't have beer. I go to school every Sunday at Queen Street. All the boys but one are Wolverhampton boys. We have done work about 4 or 5 o'clock; we begin about 4 or 5 in the morning. When I first went up, Clarke went up behind me. I never saw any boys hurt.

WALTHAMSTOW.

Examined by Mr. J. E. White.

Walthamstow. Mr. J. E. White.

No. 30.

James Harper.—I am a chimney sweeper here, but do not keep any assistants, and my own boys are too young yet, the eldest being under 5. Another sweep here employs three of his own sons, the youngest of whom looks about 7 years or less. Climbing boys are still kept in and near London, and must be used for some chimneys for which the machine cannot, either because traps cannot be put in easily or because people will not have them. If there is a great thickness of brickwork to be got through the machine will not pass the corner so as to go up the chimney. In such cases sloping the trap openings very much would do some good.

Sometimes a trap is wanted in a drawing-room or best bedroom, and people will not have it there. If it is a kitchen chimney it must be swept early in the morning, perhaps at 3 or 4 o'clock, and people will not be up by that time to let a sweep come into their bedrooms to the trap, if there is one. Some of the new chimneys are not properly built, being made too small for the sake of saving a few bricks, and having sharp corners. The flues in churches and schools are often bad, being flat. In the parish church here there is a flat flue which cannot be swept by a machine, and the boy who sweeps it has to enter it head downwards, but this can be swept by a small man.

When I have a job which cannot be done without a boy I have to bring him from town (London), paying 2*s.* for him as well as feeding him, and have to charge 4*s.* myself.

I took to climbing when I was 4½ years old. It is uncommon to begin as young as I did, but my eldest brother began before he was 4, and I have heard my father say that he used to carry him about on his shoulders to his work. When I was little, 9 or 10, or 12 perhaps, I have climbed 20 chimneys in a day, and have had my knees and elbows as raw as beef. But your flesh soon gets hard with a little salt and water and keeping clean.

BUCKINGHAM.

Buckingham.

No. 31.

Henry Swift.—I am a chimney sweeper here. Till within the last year I did not keep a boy, but so many people refused to employ me because I did not, saying that they would not have the machine, that I was obliged to get a boy to prevent losing employment, the other chimney sweeper in the place having a boy; and my custom has much increased since. I was led still more to do so by a byelaw, passed in the town just before, putting a fine of 10*s.* on fires in chimneys. I have taken my boy who is just 8, for 4 years, and feed, lodge, and clothe him, and also allow him to keep anything, as a threepence, that may be given to him at houses besides. When he has done his work, over about 4½ in the afternoon, he washes his hands and face and goes to school for two hours, for which I pay 1*d.* a week, and he goes on Sunday also. He has not a change of clothes except on Sunday, but he has a night shirt and sleeps clean.

Of course it is against the law to have a boy, but the mayor and police all know that boys climb here, and the magistrates, county and borough, so far as my knowledge goes, and the gentry generally, prefer boys, and so does one of the members, but the other will not have boys, and as I understand has provided in his house, lately built, traps and every convenience for the machine. A nobleman in Parliament near here too has boys for his own chimneys. A few but only a very few of the gentry object to them. If all these allow it sweeps should not be punished for doing what they wish. A sweep was fined 5*l.* at Winslow, a few miles off, two or three years back, but he was entrapped for the purpose into using the boy by a gentleman who had had something to do with making the law. But boys are used generally in all the neighbouring parts of Buckinghamshire, Oxfordshire, and Northamptonshire. Sweeps bring some over with them here in summer from Northampton, travelling for work. Boys are safer and can be depended on more than the machine where there are many corners and bends, and there is no harm in the employment if they are well treated; but in many places still they are not, and are roughly used and sleep black.

People will not have the trouble and expense of having their chimneys altered or soot doors put in which is necessary where the flue runs along flat or has bends. In some cases a flue runs flat round three sides of a room, probably with the view of airing it.

But in my own rounds I have never seen any chimneys that could not be swept by machines if enough soot doors were put in.

Another reason why people prefer boys is that sweeping by them will serve for much longer than machine sweeping; nearly twice as long. Where there is a constant fire the machine should be used every two months.

In my opinion boys are much better than the machine, but I do not care to have them if others cannot. But some people have such a hatred of the machine that they will have boys unless the matter be looked into very closely indeed.

[At the desire of this witness I saw the room, his own bedroom, where the boy slept. It was clean and airy, and there was an iron bedstead with proper bedding and sheets for the boy.]

No. 32.

James Curtis.—I am a chimney sweeper here, though just about to give up the business, and employ a boy of 13, whom I have had for five years and taught myself. His mother travels about, and I agree to keep him as long as she pleases, boarding him free and giving him so much in addition. He goes to school on Sunday, and also every evening, for which he pays 1*d.* himself, but he cannot read.

Many people here will not have the machine, and tell me so. The police do not interfere, and there has never been any information. At one place a sweep who informed against others for using boys has now taken to them himself.

In a large house near here, where I sweep the chimneys every month, some of the flues run flat in the walls for 30 or 40 feet. The master, a nobleman, takes every pains to avoid using boys, and superintends some of the alterations himself, but some of the soot doors put in are of no use, and have been stopped up again. There are many flues like these about here, and some even turn down again.

Climbing is not dangerous in the country, though it is where different flues run into one, as in large towns.

I began climbing just under 7 years old, and got no schooling except a little on Sundays, and can hardly read.

ANDOVER.

No. 33.

Luke Bull.—I am a master sweep here, employing a young man of about 21, and two of my own sons; and have been a sweep nearly 40 years, *i.e.*, since I was 6 or 7 years old. About 7 is the common age for beginning, as at 8 a boy is getting too large to learn the work for which he is most wanted. I took my young man when about 9 years old from a travelling sweep with whom he had worked before. He was then like a wild Arab, very rough and ignorant, and did not know great A, great B. I sent him to Sunday school, and after he was in his "teens" to night schools, and he can now read, and use his pen roughly. His neglected condition was the fault of his parents, who were wandering people. There is only one man in the town besides, and I do the sweeping in most of the best houses for many miles round, towards 30 miles between some of the farthest points, and am well acquainted with chimneys of all kinds. Though I am very glad of the introduction of the machine, as I believe most other sweeps are, I do not think it possible to do without boys entirely, and this for several reasons. If a chimney is bigger than 18 inches square, and there are thousands such in this town and neighbourhood, it cannot be swept without a brush too large for common chimneys and too heavy to be carried about conveniently with the others. A man may climb these, but he should learn as a boy. A man however can learn to climb if the chimney is big enough. But sometimes in large chimneys there is such a small trap to the grate that only a boy can get through it. My brother, when a boy, brought down 17 bushels of soot from such a chimney. Only behold what a fire that would have made, if he could not have gone up for it. But people will not now build chimneys large enough for men, as it costs so much in bricks. Small men, however, could do a good many.

Then, though the chimneys themselves may be swept by the machine, many have pots and cowls with arms sloping upwards or downwards, and some with bars across the bottoms. Of course these must be cleared, but the machine will not do it.

Again, if wood is burned, as in many country mansions, the soot "corrodes," *i.e.*, runs and cakes so hard that the machine will not touch it, the brush being too soft and there being no power to work a scraper enough for this at the end of more than one length of rod. Sometimes this cake is as hard as the brick itself, and has to be pecked off. Still it is dangerous, and a fire happened from it in a nobleman's near here, in the chimney, over a wood fire, which my men had swept with the machine instead of by climbing, as was usually done. This wood soot cannot anyhow be prevented from "corroding," not even by sweeping the chimney as often as once a month. I feel sure of that, though of course it would be to my interest that there should be more frequent sweepings.

Where, however, coal is burned, of whatever kind, and the chimney is not too large, the machine will bring down the soot quite as well as a climber, if it can be used at all. If the flue be flat the soot can be drawn out by a scraper, after being loosened above by the brush.

But many chimneys have such bends and turns that the machine cannot be got up at all, and though I never saw a chimney where this could not be got over by putting in one or more traps, these dirty and spoil the place so that some people will never consent to have them. The law makers, Lords or Commons either, will never make a law which would entirely prevent the use of climbing boys in such cases. The law now is not enforced, gentlemen's places cannot be spoiled so. Indeed as the work can be done so early in the morning it will be almost impossible to prevent using boys, for who can know of it?

There is no occasion that there should be any suffering on the part of the boys, if the masters are kind as they ought to be, though there was a great deal of cruelty formerly. That is where the mischief has been. I consider that I am bound and I like to be kind to all, especially the young. It is not even necessary that the elbows and knees should be skinned in learning, though very likely there are hardly any that have not the marks of it. Pads may be used to prevent this. I have used them in learning boys and found them answer; they can be left off when the boy has learned. Others ought to use them, but I cannot say whether many do. I expect that there are climbing boys all over England, and have heard that there are still a few in London.

Note by the Assistant-Commissioner.

[The remarks made above point to the importance of construction of grates, cowls, &c., no less than of chimneys, supposing it to be in any cases necessary for safety that some one should climb. On measurement of two grates I found that in one case the widest opening to the chimney that could be obtained was only 6 inches on the narrowest side, 10 on the widest and 7½ on the other two. In the other case there was a space of only 9 inches between the bars and the top of the grate, making it impossible for any body, but that of a very small boy, to bend upwards at a right angle as was required to enter the chimney. The witness, who did not name the age of his sons, employs a small boy.]

Climbing Boys.

WINCHESTER.

Winchester.

Mr. J. E. White.

No. 34.

James Brown.—I am a journeyman chimney sweeper here, and my mistress' son, a youth of about 15, sweeps also. There are three other master sweeps in Winchester, and they employ altogether five persons, sons of their own, who are nearly grown up, except one who is about 15, who has been a sweep "all "his life," and at the same place a boy who looks about 6 or 7, though by the time that he has been at work he must, I should think, be 9 or 10. I began to climb chimneys in Jersey when I was less than 5 years old by two or three months. I am now nearly 25. I had to practice a good deal, and a man used to go up beneath me for about the first week to keep me from dropping. That is the usual way of teaching. A boy can learn as young as that, it is according as he gives his mind to it. Some chimneys are rough, and of course that skins you on the elbows, knees, and back, sometimes it lays boys up. Some put pads on the knees if you are very bad. Saltpetre, what they call brine, is the only way of getting over it. I remember very well having that rubbed on every morning and night.

Chimneys are swept at all hours. For country chimneys we had to start sometimes at 3 or 2 in the morning, and also sweep sometimes till 9 or 10 at night, but not often after 5 or 6. Boys do not get a chance of going to school.

I never found any chimney that could not be swept without climbing.

Basingstoke.

BASINGSTOKE.

Note by the Assistant-Commissioner.

[On inquiry made in this town of the town clerk, who is clerk to the town justices and also to the magistrates of the Basingstoke division of the county of Hants, embracing 37 parishes, I found that no prosecution or complaint had ever been made there under the Act (Chimney Sweepers').]

No. 35.

Joseph Elton.—I and my two young men sweep all the chimneys here and for about seven miles round, and though only two chimneys in the town or neighbourhood have ever been altered to suit the machine, I have never come across one that I could not sweep with it, if not in the common way by the draw brush. I gave up boys about two years after the Act, as people were watching to prosecute.

Chard.

CHARD.

No. 36.

Susan Taylor.—Is the wife of John Taylor (not now at home) a chimney sweeper for 40 years, and the only one in Chard (population about 4,000) except travelling sweeps who often come for work. After the Act against having boys to climb her husband gave them up, and one of his sons gave up sweeping. But since then the gentlemen have complained terribly of the machine, and said they must have climbers to sweep. So far the last 6 months her husband has made his son, now about 12, learn climbing. But he has lost the work of one gentleman and not got it back again. This gentleman (naming a county magistrate) got a boy, she believes, from Axminster.

Sidmouth.

SIDMOUTH.

No. 37.

Hezekiah Currie.—I am a chimney sweeper here, working for Mrs. Salter. There are four men and two boys of about 15 or so besides in the town. I took to the work when I was over 30, my sight failing me, but I never learnt climbing as I always had a boy. There are some chimneys here and many in Salterton, a place near, with flat flues and no traps, and these must be climbed.

No. 38.

William Salter, age 15.—I work for my mother as a chimney sweeper, and began when 8 years old. Till then I used to go to school a bit, but cannot read or write (knows the letters and a few words); "17" is "seventy-one."

London.

LONDON.

No. 39.

Mr. John Litton, Little Grosvenor Street, Berkeley Square.—I am a master chimney sweeper, employing several men, and have been in the business ever since the year 1820, when I was apprenticed to a master of high standing in the trade, who paid every attention to the comfort and education of his apprentices.

In 1832 I began to give attention to the construction and use of the chimney sweeping machine, invented in 1826 by Glass, and to make them myself, as I have done ever since.

I was summoned as a witness before the House of Lords on the occasion of the inquiry on which the Act of 1834 was founded, though by some means or other I was kept from giving my evidence, which would have been in favour of the use of the machine, to which a large number of the masters were strongly opposed.

On the Act coming into operation the use of climbing boys in London was almost entirely put down, and has never revived to any considerable extent, but within the last four or five years it has, I think, been on the increase. The success of the Act in London is probably owing to the fact that many of the masters themselves were anxious to enforce the law, and that the society for superseding the use of climbing boys employed several agents in London, who kept a watch on any infringements of the law. It would be extremely difficult to watch country places in the same way, and I have no doubt that the use of boys prevails to a much greater extent there both for this and other reasons.

I am informed by country sweeps from all parts, with whom I have business dealings, supplying them with machines, &c., and from whom I always inquire how they are getting on with the machine, that the use of climbing boys is quite general in the country, and that they are employed even in the gentlemen's houses. If, as they tell me, the gentlemen in authority are aware of this, of course they cannot find fault with others for using boys.

Till the Act passed most persons objected to the use of machines in their own houses, and though the Act obliged them to submit, I am sure that many in London would still prefer and insist on the use of boys were it not for the support given to the machine by law.

I cannot say at all what number of climbing boys are now employed in London. Till now my belief was that climbing boys were employed in London by their own fathers only. In that case they are naturally more cared for and do not suffer the same misery as they otherwise might. But from inquiries

which I have just made amongst my men I find that in one quarter alone of London, Marylebone, there are 11 boys, and only one of them employed by his father. I certainly am surprised at this information, and the fact of its being so contrary to what my previous knowledge led me to expect shows that the use of boys in London must be greatly on the increase.

The great evil in allowing boys to be employed in climbing is that it leads to such utter neglect of their education, and cuts them off from mixing with persons engaged in cleaner employments; besides which, the very fact of being obliged to go into such a place as a chimney naturally sinks them in their own ideas, in fact destroys their self respect, and makes them ready to associate with persons of however low class or character.

I am employed in houses of all kinds, not only the large houses in Grosvenor, Berkeley, Belgrave, and Portman squares, and other places, including probably the houses of 100 noblemen, and public buildings and hotels, but also in the small houses of tradesmen, &c., and I have a thorough practical acquaintance not only with the construction of chimneys of all kinds, but also with the use and requirements of the machine.

Soon after the passing of the last Act I was taken down by a London architect to a mansion house in Hampshire, in which the chimneys were exceedingly difficult, and as the country sweep said, and the architect also seemed to think, could not be altered by putting soot doors, &c., so as to allow of being swept by the machine. The gentleman was determined not to have boys, and was going to have the flues pulled down and rebuilt. However, under my directions the smaller alterations by means of doors, of which 26 were put into the difficult flues, were made successfully, though great opposition was made by the sweep who went round with us, and in consequence of his interruptions the master of the house was obliged to send him away. In one case two flues were so close that an opening had to be made into the second through the first. I explained and left full written instructions as to how the machine was to be used in the different chimneys, but in about two years the sweep there, not through ignorance, but because he would not trouble himself, allowed the flues to become so clogged up that I was afterwards sent for from London every year to clean these flues. After some time, not caring to have this trouble, I taught two men employed on the estate, a carpenter and a bricklayer, how to use the machine. I only showed them three or four times, but they are able to sweep these flues, and have done so for the last five or six years. I have frequently made inquiries at the gentleman's town house, and found that these flues are swept effectually. If there were any difficulty I should be sent for.

I have been sent for in like manner to many other places, and have succeeded in making the required alterations. Skill and experience may be needed, but the machine can always be made use of if really wished for. In one house with 72 chimneys the sweep said that he had tried to use the machine and could not. I then put the machine up the chimney myself, and afterwards told him to do it, upon which he did it at once.

Some persons will not on any account have soot doors opening into their rooms, and some very large chimneys are better swept by climbing. I keep a small man on purpose for such work, but he does not climb on the average more than one a day. He is rather under five feet and slight, and was brought up as a climber. He can climb nearly all the chimneys that require to be climbed, but on very rare occasions, not twice in a year perhaps, there may be a chimney too small for him, and I have then procured a still smaller man for the purpose. There are several such men in London of 4 ft. 7 in. or 4 ft. 8 in. in height, and small made though not deformed, who have been brought up to climb. These men are, in fact, no bigger than a boy of about 12 years old.

I feel bound to remark that in the country in particular men are apt to raise a prejudice against the machine, telling the persons in whose houses they sweep that it will not do the work nearly so well as a boy. So far from this being so in most cases where the machine brush can pass at all, it cleans the chimney more effectually, as a strong friction can be brought to bear upon every part of the chimney, whereas the boy can produce this only in certain parts. Unless the chimney be quite large a climber cannot turn at all in it, and he cannot use much force behind him with the brush and still less with the scraper, both being above his head all the time, so that the back of the chimney is cleaned chiefly by the scrubbing of his own back.

[The witness then described the mode of sweeping difficult chimneys by the use of a ball grappling iron, &c.]

Even where part of a flue is perfectly flat the ball and rope let fall from the top into one end may often be reached from the other with the grapple, and the flue swept so.

In a large new hotel where I am employed there is a window just over a fire. The flue here is of course flat, but is swept easily by means of a soot door in the outer wall, the room being on the ground floor. If it were not it would not be easy to work the machine from a ladder at the top.

Soot doors inside may sometimes be avoided by having a "pocket," *i.e.*, a downward continuation of the flue reaching to the ground or a cellar, not for the passage of the smoke from above but only of the rods from below into the upper portion of the chimney, and for the fall of the soot when swept. It of course takes more building, but is convenient and enables the soot to be removed without any dirt or annoyance.

[Note.—In many new houses the chimneys are so constructed that they may be swept from the area.]

The number of chimneys which require sweeping from the top is fast increasing from the plan now adopted of having grates so low as not to allow of the machine being worked from the bottom. Low grates are a great means of preventing smoky chimneys, and must on this account become more general. But sweeping from the top, owing to the difficulty of reaching it, often doubles the labour and time required, or more, if a chimney has to be swept partly from the bottom also, and in any case is attended with considerable trouble and risk, especially early in the morning before it is light, when many chimneys must be swept, and in frosty weather when the roofs are slippery.

It should therefore be required in all new buildings, where the chimneys cannot be swept by the machine from the bottom in the usual way, either that some special means should be provided, as by putting in a door at the back of the grate or sinking a hole beneath the grate, or in some other way, or that proper steps and stages should be provided on the roof and chimneys for the safety and convenience of the sweeps.

It is important that chimneys should be swept in such a way, and soot doors arranged in such places, as will cause as little dirt or disfigurement as possible, that being an objection employed against the use of the machine.

It is very easy to put an entire stop to boys climbing by preventing any being employed by a sweep for any purpose, and that is the only way.

Boys are employed by sweeps professedly for sifting their soot, carrying their machines, soot, &c. The two latter employments are far too laborious for boys under 16. Even the machines are a great weight. Such employments are likely to stunt the growth more than the climbing. But as long as a sweep is allowed to employ a boy at all there is a temptation to use him for climbing, and he will naturally do so.

Climbing Boys.
London.
Mr. J. E. White.

The defect of the present law is that, though it forbids the apprenticing of boys under 16, it does not forbid their employment in any other way, and this opens the door to a violation of the law.

In my opinion no boy under the age of 16 should be allowed to be employed by a sweep for any purpose whatever. At that age a boy is too old to learn climbing properly. It is easy to know whether a boy is employed by a chimney sweeper by his appearing in a sooty dress. If this were forbidden by law there would be an end of boys climbing.

No. 40.

Mr. Henry Beach, Fireball Court, Houndsditch.—I am a master chimney sweeper, and employ a boy 11 years old to help me by carrying the soot cloths, and sometimes the machine, to sweep up my house, &c., but never to climb. I should be afraid to see him go into a chimney.

When I was between 7 and 8 I was apprenticed, and three of us used to sweep the oven flues at a well known biscuit baker's, and always did them on Sunday morning, as Saturday night was the only night that the fires were out. The flues were, therefore, always very hot, and they were likewise so small that we could only get into them by stripping stark naked, and we had to keep every part of the body constantly moving to escape being scorched. But, notwithstanding this, I have got my shoulders and elbows all full of blisters, which, after two or three days perhaps, would break and let the hot water out of them. But after a time, with climbing and burning together, our flesh got as hard as leather. I have known some sore from it on their backs, calves, &c. for months and months.

I have also suffered in other ways from climbing. Sometimes a loose bit of mortar falls and catches in the waistband of your trousers, and as there is so little room to spare, it quite fixes you; and sometimes the more you twist to get free the faster you fix it. A piece no bigger than an egg, or even smaller, will do this. I have been fixed in this way many a time for half an hour.

Boys get stuck in other ways, but it is generally only a boy who knows nothing of the work, or it happens through his own fault. I got stuck myself from this cause. I went up at nine one morning and was fixed in the chimney till ten the next morning, by which time the bricklayer had opened the chimney from above.

A boy was found dead in a flue in this way, at the West end, about two years ago, and his master was fined a good deal of money.

Another man in Eastcheap was fined last summer for using a boy, but with these exceptions there have been few informations in London of late years, or, indeed, since shortly after the passing of the Act, at which time there were several punished.

I consider that the machine is a grand thing, and that Mr. Glass, its inventor, did a great kindness and saved many a poor boy's life. If I had my will I would never see a boy in a chimney again. It leads to other evils.

I remember well two nice little boys, brothers, aged 9 and 11, where I was apprentice, being sold one Sunday morning for 30*s.* the two. A brute of a journeyman used to knock them about very much before. They were bought by a journeyman sweep and put into a country waggon and sent off. The sweep would get a good deal of money for them by selling them again, perhaps 5*l.* a piece; as London boys were very valuable in the country, as they are taught so well. The boys were never heard of again. The "poor "widow of a mother" used to come backwards and forwards to our place to inquire about them, but could never hear any tidings of them.

I never got an hour's schooling in my life, and though we (apprentices) were put into clean clothes on Sunday, and supposed to go to church, we went elsewhere to see things. I was not able to read till I had married and settled in business, and I picked this up only by reading names over doors, in coffee shops, &c., and can now just read and write enough for my business; such as writing the name of the month and so on, but nothing more. I am giving my son (Thomas), now 11 years old, a good education, and pay 15*s.* a quarter for it, besides books. I shall give him three years more schooling, and then he will follow my business. He never helps me now.

There are still several climbing boys in London, but I should say all kept by their own fathers and hired out by other men only as they are wanted for a particular job. The parts of London in which there are most, are the Highway (Ratcliffe), and St. Luke's, Clerkenwell. The common price in the trade for the use of a boy in this way is 2*s.* 6*d.*, which may be about half the price of the job. If the person who engages the boy gets a large sum for the chimney, he may perhaps give the boy 6*d.* for himself.

The only way in which an information is ever laid against a sweep for using a boy is if he has a difference with another sweep, or one of his own men, who knows where he is going and informs the police. This was the case with the Eastcheap sweep. Otherwise, the police take no notice of boys, as they are usually carrying something, and are supposed to be merely helping the master.

There is no occasion at all for having boys. I sweep in a great many public buildings, such as banks, offices, &c., and I know of no chimneys which could not be swept by the machine if the owners of the buildings would give way to my alterations, which seldom go beyond the price of putting soot doors, viz., from 10*s.* to 14*s.* each. In banks, churches, or where there are fires in the middle, the flues are generally flat. From my experience as a chimney sweeper and bricklayer, which employment I combine with chimney sweeping, I should say that there is not a chimney in London which could not be thus altered, or where the flues are so awkwardly placed in thick walls, &c. that doors cannot be put in effectually. But where the flues bend, and people will not have doors put in, a boy must be used. Landlords should be bound to see that chimneys are made so that it is possible to sweep them properly.

New chimneys, however, are not all built as required by law. Of those that I have known built within the last 20 years, I should say that there are a great deal more that require alterations afterwards than do not; but this all depends upon the builder. In many large new buildings the flues are made by circular pipes glazed inside, which are very good; but even these are difficult to sweep with the machine from the bottom if they are very high,—some which I sweep are, I should say, as much as 90 feet,—on account of the strength required, and also if, as is often the case, the grates are low. Such work is very trying to the back, and requires a very strong man.

People often object to putting doors, on account of the expense and also of the mess; but with care the work may be done as cleanly, and the room as little dirtied, with the machine as by climbing. The want of a door sometimes forces me to employ a man to help me, and where I sweep by contract I cannot charge more for this.

The coring of chimneys is often a work of great labour. I cored all the chimneys in the side of the Houses of Parliament towards the river, 879 in all. There are many flues 9 by 12 inches, and some of the air flues 9 by 9. For these I had to employ five boys, going in a cab early in the morning, and coming away late in the evening, so as not to be seen. This was in the very place where the law was made a short time before. I suppose the flues in the other parts of the building were built on the same plan.

Flues are sometimes entirely blocked up, and sometimes nearly all the way up, with a solid mass of bricks and rubbish, which the workmen shoot down the chimney, thinking it will reach the bottom; but if a brick (which is always 9 inches) gets endways in a 9 inch flue, it of course sticks and stops everything else. Even then, however, the coring may be done

quite well by a scraper, without climbing, if the walls be opened where there is a hard blockage. But this should be done while the building is in a rough state to avoid the mess.

The use of the machines is not hard to learn. The workmen in the Houses of Parliament watched me coming, copied my tools, and can now do it themselves. A boy is not strong enough to use even a sweeping machine till 16 or 17 years of age.

An idea of the labour employed in chimney sweeping may be formed from the fact that in the Bank of England alone the contractor used to have 400*l.* a year for it.

The common hour for beginning work in London is 4 a.m.; but at one public building I sometimes go as early as 1 a.m.; and work goes on at any hour up to 9 at night. Banks, offices, &c., are late, and the work is done after the gentlemen and clerks have left. People would, I believe, have us all night if we would.

[This witness's son Thomas gave proof that his father's account of giving him a good education was correct. He read fairly, had learned some catechism, showed a neatly-written exercise book, had done all the earlier rules in summing (said, however, that 11 times 11 was 122), and seemed very intelligent.]

No. 41.

Mr. Thomas Vickers, Arrow Street, Mint Street, Borough.—I have been a chimney sweeper 25 years, and sweep in St. Thomas', Guy's, and other large hospitals and public buildings, and also in some engine flues, as well as other buildings, The boilers of steam vessels have flues as well as land engines. Climbing engine flues is very trying to the constitution on account of the heat, as the furnaces cannot be spared long enough to allow them to cool. The new ones are generally built in an improved way and larger, but many of the older must be climbed and swept by a boy as they are too small for a man. Many a man and boy have been burnt so.

In boiler furnaces the flue runs from the back along one side of the boiler, through an arch over the doorway, back along the other side of the boiler, and then up the shaft. The object of this is to make a drought. The shaft itself wants no sweeping. These flues are often very small. I have one to do now 9 by 9 inches, and think I can manage it (is quite a small man) and have done so before. For a small flue I must strip. I have been obliged to refuse an engine flue of only 6½ or 7 inches square because I cannot climb it, and they will not have it altered. I have lost several jobs because I would not use a boy as I might by getting one from other sweeps, and giving about half of the money to the master, as 2*s.* 6*d.* for a 5*s.* job.

There are plenty of men in London that still have boys, especially about Whitecross Street, St. Luke's, and Clerkenwell in small alleys, but I believe that they have only their own sons, though they let them out to others for jobs. There are undoubtedly more boys now in London than there were a few years ago, though they are kept secret. The only way in which it comes before the magistrate, as it sometimes has, is when there is a little disagreement between one sweep and other.

There are many chimneys, both in public and private buildings, which ought to be altered by putting soot doors, but which people will not have altered so.

Such alterations should be compelled, and also some safe means of reaching the tops of chimneys outside. A ladder sometimes will not stand safe without pinning. Many a man has broken an arm or a leg through the want of such means. I had to refuse the sweeping of a large new hotel with 207 chimneys, very high indeed, which I had cored, because there were no means provided of reaching the top outside, and I should not find it answer to undertake the trouble and danger myself. It was only the height and the great labour and strength which that required which prevented them from being swept inside from the bottom by the machine. Since then proper ladders have been fixed there.

No. 42.

Joseph Muggridge.—I have been a chimney sweeper 43 years. All the chimneys that I have known could be altered to suit the machine, but in noblemen's and large houses in Piccadilly and the West End, where the chimneys are the worst, the objection to altering them the strongest. It is these people who make the law and they are the first to break it. They do not go so far as positively to say that they will have a boy, but they say "I won't have "my house pulled about," and leave the rest to take care of itself.

It would be a very good thing to make the law positive, and say "Boys shall *not* be allowed." It is slipped aside of now. There should be a penalty on the landlord if his chimneys are such that the machine cannot be used, as well as a penalty on the tenant for having a boy. A tenant going into a house for only a short time, as for a year or two, does not like to go to the expense of alterations. Besides if landlords were liable they would look into the state of the chimneys when they buy a house. They never think of this now. Of course at present they cannot be called to account for chimneys which they did not build themselves.

A boy may begin to use a machine at 10 or 12 years old.

The mother threw in several remarks, such as that "chimney sweeping business is the cruellest busi-"ness." "A man that took a boy we had half killed "him. He used to come here and brag how he had "treated him."

No. 43.

Mr. Thomas Burfoot, Charlotte Street, Blackfriars Road.—I began chimney sweeping at 8 years old, nearly 40 years ago; my business is chiefly in houses, but I have also some factory and engine flue work. The latter wants boys as, though the chimneys themselves are large, the flues that enter them are so small. Sometimes doors are put into these flues, but too small to be of use.

In some model lodging houses near here in Nelson Square, holding 108 separate families, the chimneys (222) which are 72 feet high are very badly arranged. Some of the flues run 60 feet straight and then turn up under the slates in such a way that the machine will not pass the bend, the flues being so small, viz., 9 × 9 inches and in places crippled to 7 × 7 by the "whiffs" or divisions which separate one flue from another; some of which, however, have been since cut out. My brush is 18 inches across and of course gets very cramped in some places. The wheel at the end too cuts a grove into the brickwork and sticks there.

These chimneys smoked terribly owing chiefly to the smallness of the flues, which would not allow a sufficient draught, though a small flue is sometimes thought better for that, and which also caused them to be more blocked up with rubbish. Though they had been cored before it had not been thoroughly done, and I had to core them all again, and did this with a machine scraper, four-sided, pressed against the sides with india rubber springs from the back, and when it reached a regular stoppage judged where this was by the length of the rod in use and opened the wall at those points.

But the flues being so small (9 × 9 inches) and the scraper 8 × 8, the labour of using it was much greater than in common cases, indeed very severe, and I ruptured myself by it.

Climbing Boys.
London.
Mr. J. E. White.

There is a great deal of tricking amongst sweeps. They say they have swept a chimney when really they have not taken care to do it all.

I have never found a chimney, even though it had many bends, which could not be swept by the machine by putting soot doors, and I have gone four or five years without finding one that needed alteration. I have only lost one piece of work by not having a boy to climb. I wanted a door put and the people would not have it.

There are a great many boys employed in London to help the sweeps, generally their own fathers. Most of these live in little alleys. I could name five such boys straight off round here, and that is not half. One of these is very little, not 10 years old, but he does not look more than 6. These boys climb when they are wanted, and even go into the slants where the men could go themselves.

I hear these boys "call round" in the streets in the morning for work. That is against law, and is a great nuisance.

My son who is 15 comes with me sometimes to hand up the canes from the tops of the roof when I go to the tops of the chimneys, and can work a machine. A boy of 10 could do that, but only for the quite low chimneys. He does not carry anything, not even the soot. I leave that and fetch it another day.

No. 44.

Letter from Sir Richard Mayne.

4, Whitehall Place,
18th March 1863.

Sir,

I have to acknowledge the receipt of your letter of the 11th inst., and to acquaint you in reply that inquiry has been made, and it does not appear that any children or young persons are employed as climbing boys to sweep chimneys within the Metropolitan Police district.

I am, &c.
Richd. Mayne.

The Secretary
Children's Employment Commission.

No. 45.

City of London Police Office,
Old Jewry (E.C.),
27th March 1863.

Sir,

In compliance with the request of the Children's Employment Commission, that I would cause inquiry to be made "whether any children or young persons "are now employed by chimney sweepers as climbing "boys within the city," I beg to inform you, of the 41 chimney sweepers resident in the city, four only, whose names and addresses are subjoined, employ young persons to assist in their business, but not, so far as we can discover, in climbing chimneys.

I am, &c.
John S. G. Hodgson,
Acting Commissioner.

P. Selby, Esq.,
Secretary to the
Children's Employment Commission.

No. 46.

Letter from Captain Eyre M. Shaw, Superintendent of the London Fire Engine Establishment.

London Fire Engine Establishment,
68, Watling Street, E.C.,
24th March 1863.

Dear Sir,

I beg to give you the following replies to your inquiries:

1. Whether boys are much used for sweeping chimneys?

Boys are not openly used for this purpose, but small men are employed on particular occasions.

2. If chimneys are as well swept by the machines as by boys?

Well-built chimneys, when new and swept by new machines, are equally well cleaned; but the old plan of scraping by hand is more searching and effectual in the case of old and badly constructed flues.

3. Whether chimney fires have increased or decreased during the last 20 years, or since the Act was passed forbidding boys to be used for sweeping chimneys?

No complete record exists on this subject, but my impression is, that their number has increased in the same proportion as the number of houses.

With regard, however, to the number of fires caused by flues, that is to say not ordinary chimney fires, but those causing damage to buildings or contents of houses, I can give you precise information, ranging over a period of 30 years, which I think will be sufficient for your purpose. The following table gives the total number of fires for each year, the number of those fires caused by flues, and the per-centage of the latter on the total number.

Year.	Total No. of Fires.	No. of Fires caused by Flues.	Per-centage.
1833	458	71	15·5
1834	482	64	13·3
1835	471	67	14·2
1836	564	79	14
1837	501	55	10·9
1838	568	59	10·4
1839	584	61	10·4
1840	681	72	10·6
1841	696	69	9·9
1842	769	70	9·1
1843	749	102	13·6
1844	762	86	11·3
1845	707	72	10·2
1846	834	75	9
1847	836	61	7·3
1848	805	55	6·8
1849	838	75	8·9
1850	868	90	10·4
1851	928	91	9·8
1852	923	75	8·1
1853	900	75	8·3
1854	953	71	7·4
1855	982	91	9·3
1856	957	73	7·6
1857	1,110	75	6·8
1858	1,114	80	7·2
1859	1,089	90	8·3
1860	1,056	70	6·6
1861	1,183	76	6·4
1862	1,303	96	7·3

I may mention that the information contained in this letter refers solely to the metropolis.

If I can further assist you pray write again, and it will afford me very great pleasure to do so.

I am, &c.
Eyre M. Shaw,
Supt. L.F.E.E.

R. D. Grainger, Esq., F.R.S.,
4, Old Palace Yard,
Westminster, S.W.

No. 47.

Extract from the evidence of the late lamented Mr. James Braidwood, Superintendent of the London Fire Engine Establishment, given before the Select Committee of the House of Lords, 1840.

"Do you think that the discontinuance of the use of boys for sweeping chimneys would be attended with risk?—Not at all, provided where the machine could not sweep them there were doors made by which they could be swept.

"You think if the use of soot doors were generally resorted to there would be no danger in discontinuing the sweeping by boys?—I do not think there would."

No. 48.

Extract from "Plain Hints on the Subject of Chimney Sweeping;" by Robert Steven, Esq., of the Hand-in-Hand Fire Office. 1845.

"More than two years have passed away since the Act came into operation that has put an end to the

disgraceful employment of children in sweeping chimneys, and it will be satisfactory to know that during that time no one case of real difficulty has arisen, and that nothing has occurred tending in any way to call in question the safety of the measure, or to weaken the arguments which were brought forward in its support."

No. 49.

EXTRACT from a work published by ROBERT STEVEN, Esq., in 1841, entitled "The Nature of Chimney Sweeping, &c."

"The Bank of England took a prominent part in this work of mercy, and Timothy Curtis, Esq., the then Deputy Governor, lost no time in ascertaining how far the machine could be safely adopted, by issuing an order to the Clerk of the Works, which will be best explained by the annexed certificate.

"'I, the undersigned, certify that I received the orders of the Deputy Governor of the Bank to try the comparative efficiency of sweepings by boys and by Glass's machine; that such experiment was made in the bank in my presence, by sweeping 11 chimneys; that out of this number five were swept by boys and six were swept by the machine; that the five were afterwards swept by the machine, and the six swept by the machine were afterwards swept by the boys, and that the following is the result:—soot brought down by the boys after six chimneys were considered fairly swept by the machine, 19 quarts; soot brought down by Glass's machine out of the five chimneys after the boys had finished their labours, 41½ quarts.

(Signed) GEO. TOPPLE,
Bank of England, Clerk of the Works.'
31st December 1836.

"The testimony of a practical man in such a building as the Bank, acting as he did under the direction of so eminent an architect as Mr. Cockerell, tended to open the eyes of many unbelievers, and the old chimney sweeper was dismissed, and the chimneys of the Bank were entrusted to Glass, the inventor of the machine."

[Note, March 1863. It appears from a recent inquiry that the chimneys of the bank are still swept by the machine under the management of two of the workmen of the establishment.]

No. 50.

CERTIFICATE of the efficiency of the Sweeping Machine.

"Mr. Steven begs leave most respectfully to enclose the following information, persuaded that many persons will prefer having their chimneys swept by machinery when they are assured of its efficiency, and that it makes less dirt in the room than when boys are employed :—

Testimony of London Fire Offices in favour of Mechanical Chimney Sweeping.

We, the undersigned, do hereby certify on the part of our respective offices, that we have long been in the habit of using Glass's machine for the cleansing of our chimneys, and that we find it done as effectually, as when we employed those men who keep boys for the purpose :—

Andrew Hamilton, Alliance Assurance Office.
H. Desborough, Atlas Assurance Office.
George Keys, Secretary to the Guardian Assurance Company.
Robert Steven, Hand-in-Hand,
Joseph Reid, Imperial Assurance.
John Lawrence, London Assurance, Birchin-lane.
Rober John Bunyon, Norwich Union Insurance Society.
Wilmer Harris, Protector.
Samuel Fenning, Secretary, Royal Exchange Assurance.
Thomas Lewis, Secretary, Union Assurance, Cornhill.

No. 51.

EXTRACT from a LETTER from HENRY W. LORD, Esq., Assistant-Commissioner.

"In the first place the *necessary* suffering which the mere education of a child as a climbing boy entails on him, quite independently of any cruel treatment by brutal masters, is not generally known. Several gentlemen, who in the first instance have regarded the matter as nothing more than one of the rough trades, which rough boys may as well be at as not, have, on my telling them something of what I had learned myself, promised me to inquire how their chimneys were swept, and to give their servants strict orders not to allow boys to sweep them.

"In the second place I am convinced that in very many country districts, and in towns also where old fashioned houses still exist, the occupiers both of private dwellings and of places of business wink at the practice of sending boys up their chimneys. Two very estimable gentlemen, magistrates of their county, have said to me very significantly, 'We prefer not to 'ask how our chimneys are swept.' Clergymen in rural parishes have told me that their sweep assured them that their chimneys could not otherwise be swept, and either have not understood or have distrusted the adoption of soot doors in the cases where such are needed."

No. 52.

LETTER from FRANCIS WEDGWOOD, Esq., Treasurer of the North Staffordshire Association for Suppressing the Use of Climbing Boys.

As Treasurer of an Association for stopping the climbing of chimneys, and at Mr. Longe's suggestion, I make the following statement :—

In the summer of 1855, a few inhabitants of the town of Hanley, in the Staffordshire potteries, formed themselves into a society to put a stop in that town at least to the prevalent customs of climbing chimneys. There was then no machine in the town, nor I believe in the neighbourhood, unless there was one at Newcastle. At any rate throughout the Potteries climbing boys were in universal use.

In November we appointed an agent (a sweep) and provided him very insufficiently, but to the utmost of our means, with machines, and a small sum of money, to carry on the sweeping business really on his own account, but nominally for us.

In July 1856 he reported 70 climbing boys discontinued, 36 informations laid, 7 convictions, in a district of about 40 miles long from Macclesfield to Tutbury (for he had not confined himself to our district), at a loss of about 10*l.* As of course he could not go on at a loss, and had proved himself so zealous and effective, one of the committee furnished him with some little money to carry on the soot trade, but had to give it up in two years with the loss of 88*l.*

In June 1858 we changed our plan, appointing Mr. Peter Hall our agent, inspector only, with a yearly fee of 10*l.*; and henceforth he carried on the sweeping trade on his own bottom. He is bound to inspect our district, the town of Hanley; but his zeal, or the good of his trade, leads him to extend his inspections to a distance of 18 or 20 miles round, laying information against sweeps and householders, and threatening builders for breaches of the law, the expenses being chiefly borne by a member of the committee. Hanley is hereby kept entirely free from climbing boys, and the entire Potteries very nearly so.

The expenses in seven years have been—

	£
Loss by the soot trade - - -	88
Expenses of Association, including nine machines, inspector's fees, &c., -	100
Informations - - - -	34
Total -	222

nbing Boys.

Result.

No chimney need be climbed.

There is no very general strong feeling against the use of climbing boys. Lords, squires, magistrates, mayors, have their chimneys so swept without shame, and of course are very unwilling to convict sweeps for doing the same for others. One justice, if I remember right, required the age of a little boy produced in court to be proved by certificate of baptism. Of course such a requirement made a conviction impossible.

Remedy.

Size would perhaps be a better limit for sweep's boys than age, because a boy might be measured in court and a size might be fixed on which would make it impossible to get up a flue. But whether size or age is taken, sweeps should be forbidden to employ a boy below the limit at all. Then there would be no difficulty in the police stopping it. Any boy found at any time or place covered with soot and below the limit might be bound to give an account of himself and master. And it might perhaps be made, either by Act of Parliament or instructions from the Home Office, the special duty of the police to look out for chimney sweeps' boys below the limit.

Why should putting the law in force be made a special burden on the purse of the half dozen men, Quakers and others, who are driven by a sense of cruelty to little boys to undertake it?

FRANCIS WEDGWOOD.

Etruria, Stoke-upon-Trent,
22nd November 1862.

No. 53.

MIDLAND ASSOCIATION for the Suppression of the Use of Climbing Boys.

Note.—In consequence of the extensive evasion of the Act of Parliament in the Midland counties, the above-named Society, including several noblemen, members of Parliament, and magistrates, was established in 1857. The great extent to which the law was violated is shown by the following extract from the first Report of the Association:

"The result of operations during the past year is as follows:—

"There have been 97 distinct cases in which the Association have taken proceedings against sweeps or householders. 30 of these have been withdrawn on payment of costs, and promising not to repeat the offence. 26 have been dismissed. In 34, convictions have been obtained; in eight of which the penalties have been paid, and in 22 cases the parties have gone to prison. In the remaining instances the parties have absconded, or on admitting the offence the penalty has been waived on special grounds."

The Committee proceed to remark that "it seems strange and unaccountable that in a day remarkable for enlightened progress a barbarity like that of sweeping chimneys by boys should be tolerated anywhere, especially since in London and several large towns it has been demonstrated that the use of simple machinery is equally or more efficient, creates less annoyance and dirt (if a sweep will only do his duty), may in all cases be made available, and what is more, prevents that outrage on humanity by which unnatural parents are often tempted to sell their offspring at a very early age, for a trifling consideration per annum, dooming them to a life of wretchedness and misery amongst strangers, and remote from those who ought to be their best protectors. During the short period your Committee have been brought in contact with master sweeps, several painful cases of this nature have come to their knowledge. Such cases are certainly a scandal and a reproach to a country manifesting in the present day a laudable anxiety to check juvenile delinquency, to promote education, and to raise the standard of our public health; but your Committee feel assured that the evil they seek to remove and to destroy has only to be brought to light and it will be condemned in practice by all who desire the physical, moral, and social improvement of society.

No. 54.

LETTER from MR. JOSEPH JONES, formerly Secretary of the Midland Association.

SIR, Full Street, Derby, 13th March 1863.

I HAD the honour of recently receiving from you a letter, written by direction of the Children's Employment Commission, requesting information and suggestions as to the Act for preventing the use of climbing boys in sweeping chimneys.

As four or five years have elapsed since I took a prominent part in promoting a better observance of the Act in the Midland counties, I am not able to say much of the present state of things in this or neighbouring counties, but fear from my experience of the past that in the absence of vigilant inspection (which cannot be permanently sustained by philanthropic effort) the law will continue to be more or less evaded. I incline to this opinion from the evident unwillingness of many magistrates to convict, and the apathy or connivance this creates amongst the police, as to breaches of the law, from the prejudices of householders, and the confirmed habits of many sweeps, particularly in small towns and country villages.

I think, too, the law needs alteration, and that no boy should be allowed to follow the occupation of a sweep under 16 years of age, his name, &c. being first registered, with power to call for legal proof of such age when required from the master or parents of the boy.

I have, &c.

P. Selby, Esq., Secretary. JOSEPH JONES.

55.

MEMORIAL from the "Birmingham Association for the "Suppression of the Use of Climbing Boys."

To the Children's Employment Commission.

Your memorialists respectfully represent:

That during the last five years a sum of nearly 500*l.* has been expended in the borough of Birmingham in endeavouring to prevent the use of climbing boys, and that although partially successful there are still no fewer than 25 children thus employed, several of whom are mere infants, recently put to this fearful trade by their own parents, thus supplying the ranks of those whose early sufferings so often terminate in an untimely and fearful death. One death from chimney sweepers' cancer has occurred within a short time, and two sweeps are at the present time affected with it.

That your memoralists are credibly informed by chimney sweepers who use only machines, that the chimneys in this borough and neighbourhood present no peculiar obstacles to the employment of machines, and that therefore the large amount of suffering entailed upon children by this painful and dangerous employment is as needless as it is unprofitable.

That your memoralists have found that the circumstance that the Act of 1840 for the suppression of climbing boys having apportioned one-half of the fine to the informer, creates a prejudice in the minds of many magistrates against those who endeavour to have the law put in force against offenders, whilst the absence of a public prosecution leaves it to the casual efforts of a few benevolent individuals to undertake the defence of the poor children.

That your memorialists believe that could these defects be remedied by making the carrying out of this humane law a necessary part of the duties of the police, and also by making it illegal for a chimney sweeper to "employ" a boy, instead of its being only illegal, as at present, to have one as an apprentice, the appearance of a boy covered with soot being *primâ facie* evidence of employment, and the onus of disproof lying with the employer—the nefarious trade must soon die a natural death, and thus rescue hundreds of white infants from a slavery which, for the

time being, is scarcely exceeded in cruelty and misery by any known form in any part of the world.

(Signed) Arthur John Naish.
Charles Sturge,
Mayor of Birmingham.
William Nutter.
R. C. Barrow.
Wm. Southall.

No 56

Birmingham Association for the Suppression of the Use of Climbing Boys.—Report of the Committee.

June 1861.

Five years having elapsed since the Committee for Suppressing the use of Climbing Boys commenced their operations, and three years since the issue of their former report, they consider that a short statement of the success they have met with is not only due to those who have kindly assisted them but will also encourage them to exert themselves still further, and to carry on their philanthropic efforts till this large town and district shall be entirely purified from a practice so disgraceful to humanity.

Owing to the changeable character of the trade, it has not been possible to attain exactitude as regards numbers; but we believe that at the period named (1858) there were 76 master sweeps and 58 boys, thus showing not more than 18 masters who employed machines only.

It having been resolved, after much consideration, that in order entirely to preclude the possibility of any appeal to the sympathies of the public, and to leave them without excuse for continuing the use of boys, each master sweep should be presented with a machine, a meeting of the sweeps was called, at which the Mayor, T. R. T. Hodgson, Esq., presided, and the machines were accepted by all of them, except two. A legal document was drawn up, and signed by each recipient of a machine, binding him no longer to employ a boy, and to exhibit the machine in good condition at the end of twelve months, previous to his receiving it as a gift. Some of these men have faithfully kept to their engagement, but it was soon evident that many others would make no alteration in their old practices, except under compulsion. For most of them the idle habits of years, fostered by the ability of living on the unpaid labour of oppressed and unresisting children, had attractions too strong to be resisted.

The Committee have, therefore, found it necessary to employ an inspector, Mr. Peter Hall, through whose exertions, and those of an occasional asssitant, the number of climbing boys has been very materially reduced, and we have good reason to hope the practice of employing them will be shortly abolished, since the number of 58 in 1856 has now been decreased to 14, of whom,

4 are 17 years of age,	2 are 12 years of age.
3 „ 16 „	2 „ 10 „
1 is 14 „	1 is 9 „

and 1 an infant of 7 years of age!

And of these the first seven will shortly be of an age at which they will either become masters themselves or will abandon the trade.

To accomplish the entire abolition of this practice will require the aid of the public and the constant vigilance of the Committee, a further engagement with our inspector, and a small sum annually in addition to his expenses for fees in cases of prosecution; for even when we have been successful in visiting the offence with a fine, we have not always thought it well to exact its payment, considering it always most important, if possible, to obtain the future co-operation of the defendant.

Our labours have been extended for some distance around; convictions having been procured in Solihull, Tamworth, and other places. At intervals we have placarded the district with "caution" notices, so as not only to leave the guilty without excuse, but also to prevent any sweeps, and more especially any householders, from suffering the use of climbing boys from mere ignorance of the state of the law; it being extremely difficult to procure the conviction of a householder, although this has sometimes been done. And whilst striving to put an end to a practice so ruinous to the health and morals of the children, we have not neglected to show an interest in the welfare of the masters, or to assist them in occasional endeavours to make their position and employment more respectable. Climbing Boys.

The town mission has lately taken a considerable part in endeavouring to raise this class of men in their own estimation and that of the public,—in inducing them to become more sober, and to give up their riotous celebration of the May games, and we hope that their endeavours have already met with some success, evidence by great improvement in the conduct of the sweeps this spring.

When we consider that in the city of London no climbing boys are to be found; that Bath, with its thousands of old and high houses, does not contain a single climbing boy; that within the last few years 70 poor boys have been rescued from this wretched life in the Potteries alone, chiefly through the instrumentality of Peter Hall; and that only one or two boys are to be found in Edinburgh; we trust that Birmingham will soon lose its bad pre-eminence.

We conclude that the demoralizing nature of the trade itself, its ruinous effect upon the health of the poor oppressed children, who are forced up chimneys to learn their frightful trade at an age when our own are scarcely out of the nursery, and the *almost* impossibility of a man who has been apprenticed to a sweep maintaining a respectable position in society, are too well known to our friends to require our stating afresh the facts which have been for so many years before them, and we trust that no further appeal will be needed to induce them to continue their assistance until this form of "white slavery" shall be entirely abolished.

It will be seen by the following financial statement that we are in want of immediate assistance, to carry on our work to a successful conclusion. Subscriptions or donations will be received by either of the Secretaries,

Edmund Sturge.
A. J. Naish.

57.

Letter from the Procurator Fiscal of Glasgow.

City Procurator Fiscal's Chambers,
Glasgow, 10th December, 1862.

Sir,

I have much pleasure in complying with the request conveyed in your letter of 3rd December instant.

By the former Police Act for Glasgow of 1843 no person was allowed to act as a chimney sweep for hire, until licensed by the magistrates and town council, who were empowered to make regulations, as conditions of such licence, to be enforced by penalties, and likewise to exact security for good conduct. A register was also to be kept of such licences, and any person acting without a licence was subject to a penalty not exceeding 30*s*. Regulations were accordingly framed, and among others chimney sweeps were prohibited from permitting or suffering any child or young person under the age of 21 years from ascending or descending any chimney or entering any flue for the purpose of sweeping, cleaning, or coring the same, or for extinguishing fire therein. The enforcement of these regulations acted most beneficially, and prevented the use of climbing boys in sweeping chimneys in Glasgow.

The existing Police Act for the city of Glasgow passed last session of Parliament, contains somewhat similar provisions to those above referred to. A Statutory Committee of "The Board of Police," and consisting of the Lord Provost and magistrates of the city, are empowered to grant such licences and to make byelaws for regulating the trade of chimney sweep, &c. These byelaws are to be framed and confirmed in manner provided by the Act and enforced by the imposition of penalties. The Committee have the revision of byelaws under consideration at present, and those enacted will be equally stringent and effective in preventing the use of climbing boys, as the byelaws under the previous Act.

Climbing Boys.

I have transmitted by this night's post a copy of the byelaws and statutory enactments regarding chimney sweeps under the Act of 1843, and a copy of the existing Act, with the following sections applicable to the subject referred to marked therein:—viz., from sections 171 to 189 inclusive as to the granting of licences; section 248 empowering the magistrates to make byelaws; 415 authorizing the imposition of penalties for their enforcement; and from sections 414 to 422 inclusive prescribing the mode in which the byelaws are to be framed confirmed, published, and enforced. There is also a statutory enactment contained in section 12 of clause 145 of the Glasgow Police Act of 1862 which authorized the magistrate to impose a penalty of 5*l.*, or to imprison for 30 days without penalty every person who compels or knowingly allows any person under the age of 21 years to ascend or descend any chimney or enter a flue for the purpose of cleaning, sweeping, or coring the same or extinguishing fire therein. I have also transmitted application for and form of licence to which the new regulations will be attached.

I shall be happy to give any additional information in my power which may be required.

I have, &c.

P. Selby, Esq., JOHN LANG.
Sec. to Children's Employment Commission,
2, Victoria Street, Westminster.

No 58.

SECTION of the GLASGOW POLICE ACT relative to Chimney Sweeps.

Sect. 195. "And be it enacted, that no person within the limits of this Act shall be entitled to act as a public carter, porter, window cleaner, or chimney sweep, for hire, until he is licensed to act, in either of these capacities, by the magistrates and town council of the said city, who shall cause a register of such persons to be kept, and if they see cause exact security for their fidelity and good conduct; and such persons, when so licensed, shall be subject to such regulations as the said magistrates and town council may make as conditions of such license, or otherwise for their government, and for the regulation of the stands and places such persons shall occupy with their carts, barrows, utensils, or implements, under such penalties, not exceeding 40*s.* as the said magistrates and council may fix; and any person acting in any of said capacities, without being so licensed, or the licence is recalled or suspended, which the said magistrates are hereby authorized to do at pleasure, shall be subject to a penalty not exceeding 40*s.* for each offence."

REGULATIONS.

Issued 22nd October 1852.

1. No person shall be permitted to act as a chimney sweeper, within the limits of the city, unless such person shall have been licensed by or under the authority of the magistrates and council, either by holding a badge from them, or from a master chimney sweeper licensed by them; and it shall be declared, in each licence, that the person receiving the same shall be bound under the penalty herein-after specified, to observe these regulations, and any others that may hereafter be enacted by the magistrates or council.

II. Each master shall receive a badge for himself; and one bearing his name for each of the men in his employment, for whom he shall be responsible, and whom he shall be bound to produce, when required, to answer to any complaint brought against him for a contravention of these regulations; and failing the master producing the person complained upon, the master shall be responsible and shall be proceeded against accordingly.

III. Any chimney sweeper holding a badge from a master, on leaving or being dismissed from his service, shall immediately deliver up his badge to the person from whom he got it.

IV. In terms of the Act 3 & 4 Victoria, cap. 85., no chimney sweeper shall permit or suffer any child or young person, under the age of 21 years, to ascend or descend any chimney, or enter any flue, for the purpose of sweeping, cleaning, or coring the same, or for extinguishing fire therein.

V. Every licensed chimney sweeper shall be bound to accept an engagement to sweep a chimney or chimneys when required.

VI. Each chimney sweeper shall wear his badge on the left arm of his outer garment, and shall always be provided with ropes, besoms, brushes, ladders, bags, and all other implements necessary for sweeping chimneys and extinguishing fires. He shall also be provided with a copy of these regulations, and shall show the same and his badge, when and by whomsoever required. No chimney sweeper shall transfer or lend his badge to another.

VII. The rates to be charged by chimney sweepers shall be according to the annexed Table.

VIII. Any person exacting or attempting to exact a higher rate than those specified in the annexed Table, or committing any other breach of these regulations, shall be subject to a penalty not exceeding 40*s.*, besides deprivation or suspension of license.

In order to prevent, as much as possible, chimneys taking fire, the magistrates recommend to the inhabitants to get their chimneys swept every six weeks, and not to employ or admit to their houses, or to the roof thereof, any chimney sweeper not having a badge, or who refuses to produce the same when demanded. The magistrates also recommend to the inhabitants to keep the hatchway, or other access to the roof of their houses, properly secured; and not to entrust the key to any chimney sweeper who has not a badge, in order to prevent theft and destruction to property.

No. 59.

EXTRACTS concerning Chimney Sweeps from the Glasgow Police and Statute Labour Act.—25° & 26° Vict. c. cciv.

Every person who compels or knowingly allows any person under the age of 21 years to ascend or descend a chimney or enter a flue for the purpose of sweeping, cleaning, or coring the same, or for extinguishing fire therein, shall be liable to a penalty of 5*l.* or imprisonment for 30 days.—(Sect 145.)

Every person desirous of carrying on within the the city the calling of a chimney sweep, shall make an application in writing to the magistrates' committee for a licence, and shall sign such application, and deliver it to the Clerk.—(Sect 174.)

The magistrates' committee may make byelaws applicable to chimney sweeps for any of the following purposes :—

For regulating their charges; for distinguishing them by badges; and generally for securing civility and preventing extortion or misconduct.—(Sect. 148.)

The board and the magistrates' committee, and the chief constable with the concurrence of the magistrates' committee, may make byelaws for the several purposes for which they are by this Act empowered to make byelaws, and may repeal, alter, or amend them, and enforce them by the imposition of penalties.—Sects. 414 & 415.

No. 59.

REGULATIONS for the Chimney Sweepers of Edinburgh.

Section of the Edinburgh Police Act relative to Chimney Sweepers.

243. And be it enacted, that no person shall be entitled to act as a chairman, public carter, porter, chimney sweeper, or carrier of coals, for hire, within the limits of this Act, until he is licensed to act in either of these capacities by the magistrates, who shall cause a register of such persons to be kept, and, if they see cause, exact security for their honesty and good conduct; and such persons when so licensed shall be subject to such regulations as the magistrates may make as conditions of such licence, or otherwise for their government, and for the regulation of the stands or places such persons shall occupy, with their

carts, barrows, utensils, or implements, under such penalties, not exceeding 40*s*., as the magistrates may fix ; and any person acting in any of the said capacities without having such licence, or after such licence is recalled or suspended, which the magistrates are hereby authorized to do at pleasure, shall be subject to a penalty not exceeding 40*s*. for each offence.

At Edinburgh, the 1st day of January 1849.

Which day the magistrates of the City of Edinburgh being assembled, did and do hereby, in virtue of the 243rd section of the Edinburgh Police Act, 1848, enact and ordain the following byelaws for regulating the chimney sweepers of Edinburgh, acting as such within the limits of the said Act,

W. Johnston, Lord Provost.
John Melville, B.
J. H. Stott, B.
And. Tait, B.
Wm. Tullis, B.

Byelaws.

1. No person shall be permitted to act as a chimney sweeper within the limits of the said Act, unless such person shall have been licenced by she magistrates, either by directly holding a badge from from them, or from a master chimney sweeper licenced by them ; and each person receiving a badge as a chimney sweeper shall accept it on the condition that he shall observe these regulations, and any others the magistrates may from time to time enact.

2. Before receiving such licence he shall (if required) produce a certificate of his good character, and shall also find caution acted in the burgh court books for his good behaviour, honesty, and intromissions, and to observe and obey these regulations, or any others the magistrates may think proper to make for regulating chimney sweepers, under the penalty of 40*s*. attour performance ; and when his cautioner dies, or leaves Edinburgh, the chimney sweeper shall give intimation thereof to the Depute City Clerk, and find another cautioner.

3. Each master shall receive a badge for himself, and one, bearing his name, for each of the men in his employment, for whom he shall be responsible, and shall produce when required to answer to any complaint which may be brought against him for a contravention of these regulations ; and failing his producing the man, the complaint shall proceed against the master. Any chimney sweeper holding a badge from a master after leaving or being dismissed from his service, and refusing or delaying to deliver the same when required, shall be liable in a penalty of 40*s*.

4. When a chimney takes fire, only the two chimney sweepers with badges first present will be entitled to enter the premises for the purpose of extinguishing the fire, unless others are specially called by the occupiers, or by the police, to assist ; and no chimney sweeper will be entitled to refuse his assistance in extinguishing fires when called for.

5. Chimney sweepers failing or refusing to show their badge when demanded may be denied admittance to any house, the chimney of which is on fire ; and no person shall refuse admittance to the first two licensed chimney sweepers who may present themselves, or to any others who may be required, whether firemen or chimney sweepers, for the purpose of extinguishing a chimney on fire in the premises.

6. Chimney sweepers wilfully injuring or destroying chimney stalks or cans, or grates, will be liable in the penalty in the aforesaid Act, and also in reparation and restitution of the property destroyed.

7. No licensed chimney sweeper shall be entitled to refuse an engagement to sweep a chimney or chimneys when required.

8. Each chimney sweeper shall wear his badge on the breast of his outer garment, and shall always be provided with ropes, besoms, brushes, ladders, bags, and all other implements necessary for sweeping chimneys and extinguishing fires. He shall be ready on all occasions to serve the inhabitants ; and shall always conduct himself in a civil and decorous manner. He shall also be provided with a copy of these regulations, and shall show the same and his badge when and by whomsoever required. No chimney sweeper shall transfer or lend his badge to another. Climbing Boys.

9. All fares shall be charged according to the annexed table ; and any person committing any breach thereof, or of these regulations, shall be subject to a penalty not exceeding 40*s*., besides deprivation or suspension of licence.

10. The city officers and constables of police are authorised and enjoined to see these regulations enforced, and all complaints arising out of any breach thereof, shall proceed, at the instance of the procurator fiscal of the city, before the magistrates.

Note.—Extra work required to be done in sweeping any vent, to be paid according to the agreement of the parties, or as may be decided by the master of fire engines or other party to whom any dispute may be referred.

In order to prevent as much as possible chimneys taking fire, the magistrates recommend to the inhabitants to get their chimneys swept every six weeks, and not employ or admit to their houses, or to the roof thereof, any chimney sweeper not having a badge, or who refuses to produce the same when demanded.

The magistrates also recommend to the inhabitants to keep properly secured the hatchway or other access to the roofs of their houses, and not to entrust the key thereof to any chimney sweeper who has not a badge, in order to prevent theft and destruction to property.

No. 60.

Sir, Aberdeen, 30th April 1863.

In answer to your communication of 14th instant anent the employment of children in the sweeping of chimneys, I beg to inform you that the practice does not exist in the city of Aberdeen, and that very young persons are not employed at all by the men who clean chimneys.

I am not aware of any byelaw or regulation or local act bearing upon this subject, but I have not the least doubt that by the common law of Scotland the sending of a young child through a sooty chimney would be punishable as an offence or crime. To send a cat or other domestic animal through such a place would, I have no doubt, be a contravention of the Cruelty to Animals Act, and the common law of Scotland would in my opinion reach and punish any act done to a child which would amount to cruelty if done to an animal. As to being able to give evidence which might be useful to the Commission, you perceive that it would be of a negative sort, but, perhaps, not the less useful. We have in Aberdeen, I dare say, all sorts of narrow and crooked and awkward chimneys, and it appears that the tradesmen, chiefly slaters, who are employed to clean them manage to do so without employing children.

I am, &c.
Geo. Corcierhead,
Procurator Fiscal.

P. Selby, Esq.,
Children's Employment Commission,
2, Victoria Street, London, S.W.

No. 61.

Letter from Mr. Whitehead (Master Sweep).

Gentlemen, Liverpool, 21st Feb. 1863.

In compliance with a request I beg respectfully to offer my views respecting the defects of the Act of Parliament 3 & 4 Vict. cap. 85., passed in 1840, for the purpose of abolishing the employment of children or young persons under the age of 21 years for the purpose of sweeping chimneys and flues, &c., &c.

The first great defect in this Act is the clause which makes it illegal for any magistrate to apprentice a boy to the trade of a chimney sweeper under the age of 16 years ; but this clause has no effect for the purposes of this Act, because it does not prevent chimney sweepers from having boys in their employ who are not apprenticed ; the consequence is that large numbers

Climbing Boys.

keep small boys, from 8 years of age upwards, and in most if not all such cases for the purpose of climbing, contrary to the Act of Parliament.

The next defect is the fact that there is no recognized authority for carrying out the provisions of this Act, therefore it is left entirely to the active benevolence of a few individuals, who have spent large sums of money, much time, and have suffered from personal insult, in their humane efforts to carry out the intentions of this excellent law.

The next defect I beg to notice is the building clause, regulating the constructing of chimneys and flues. This clause is framed in a very loose manner, for there is a very great difficulty in proving the angles are more acute than the law allows, and the responsibility is not fixed in that definite manner necessary in such a case; the consequence is, the law is seldom thought of by builders, and we have many angular chimneys constructed, both in ignorance and in violation of the law.

Another difficulty in carrying out this Act to a successful issue is the fact that the law is violated indoors, and we know many instances where the sweep has locked himself in the room until the chimney was cleaned; therefore, although we were satisfied the law was being broken, we had no means of getting any evidence of the fact.

From what I have stated above you will see many alterations will be required to make the law effective in preventing the use of climbing boys; but I believe the following suggestions properly drawn out in detail would, if embodied in an amendment of the Act, add much to its efficiency:—

1. As regards the building clause. I think that as in most large towns there are building surveyors, employed by the Corporation, that all plans for buildings should be submitted for their approval, and if the chimneys are not constructed in strict conformity with the Act let him reject them; and for any infringement of the Act let the responsibility be definite, and placed on either the architect or builder of the premises.

2. For the purpose of preventing boys being employed by chimney sweepers under age, I would suggest that each young person be registered by the magistrates, under the age of 21 years, that no boy under the age of 15 years be allowed in the business under any circumstances; and in the case of those boys who are registered, the register should contain his age, name, and any other particulars deemed necessary, and arranged so that such particulars might be obtained as evidence in case the boy should be employed contrary to the law, as before stated, according to the Act 3 & 4 Vict. cap. 85.

3. I would suggest that this Act should be brought under direct control of the police authorities, so that it would be part of the policeman's duty to see that this law was strictly observed, the same as any other law; and, as before stated, the law is violated in-doors, the police should have the power of gaining admittance into any premises when they believe the law is being broken. Under existing circumstances, the police does not take the least notice whether the law is observed or not, and I have found in some instances that the magistrates have really discouraged the police from performing their duty so far as regards this Act.

4. I would suggest that that portion of the information clause which gives the informer one half of the fine when paid should be altered, for although the fine is very seldom paid, yet it leaves us open to the charge of prosecuting parties for the purpose of obtaining the share of the penalty, and you must be aware of the odium attached to the name of a COMMON INFORMER, which is the term generally used in these cases, often, I believe, to excite sympathy in favour of the defendant, and to try and damage the prosecutor. I therefore believe that if this clause was carefully altered it would do much good, by placing the policeman in some measure in the place of the informer; yet it should be left sufficiently open to allow any benevolent persons still to interest themselves in enforcing the provisions of the Act of Parliament.

Another great discouragement in carrying out this law has been the heavy costs; in many cases, I believe, made much higher than necessary, and the amounts varying according to the rules of the court in which the case has to be tried. In Liverpool the cost is 4*s.* 6*d.*; but in some of the courts in the country I have heard of the costs amounting to nearly 2*l.* I would, therefore, suggest the regulating the cost in any amendment, so that it would be the same in every court, whether in town or country.

In conclusion, I beg to say that although the Act abolishing the use of climbing boys has been in operation since 1842, there are yet hundreds of helpless children still employed in this dangerous and degrading employment, simply because the friends of the climbing boy have never been able to enforce the law from its very defective state, for the purpose it was intended for; and until there is a law much more stringent, and which can be carried out with much more ease, I fear the present state of things will continue, and many more climbing boys be added to the already large list employed at the present time.

I have scribbled these few remarks, gleaned from my personal experience in this matter, and had time admitted I would have submitted my remarks in a more regular form. Trusting you will excuse these few hasty lines,

I remain, &c.

To the Commissioners for Inquiring into the Employment of Children and Young Persons.

GEORGE WHITEHEAD,
3, South Street,
Toxteth Park.

No. 62.

LETTER addressed to the EARL of SHAFTESBURY.

MY LORD, Boxmoor, March 14th, 1862.

YOUR humble servant is a chimney sweep, and has left off using climbing boys according to the act of parliament, for severall years, in consequence of the injury to myself and the trade in general. Of all my neighbouring chimney sweeps, using boys under age, i laid an information before the magistrates at Hemel Hempstead, of an infringement of the act; the defendant boy being about 10 years of age went and swept a chimney, and the master went to the house and left the boy by himself to evade the law, the occupiers admitting to me and the police officer the witness, that the master had been to the house and saw that the boy was up the chimney. The master sweep came to my house for me to compromise the case, but i would not, as my object is not to make money but to compell the masters to discontinue the use of climbing boys, for the benefitt of the poor boys who receive no education and grow up in all manner of vice. The magistrates were pregudiced against the act, one of the magistrates made the remark at the bench that it was the worst act that was framed, they dismissed the case and charged me the complainant with 12*s.* expenses, i was informed your lordship first introduced the bill, and as your humble servant was apprenticed in london and can sympathise for the hardships and cruelties practised on the climbing boys, your humble servant has a large family to provide for, and i can cadidly assert that i am the only mechanical sweep in the county, so that am greatly injured by men going about and doing my work with climbing boys, so taking the bread from my family. My object in writing to your lordship is to know whether you can inform me how to proceed, i hope your lordship will pardon me for trespassing on your valuable time.

Your humble servant,

Boxmoor, near, Hemel Hempstead, Herts.

CHARLES SKINNER.

No. 63.

LEICESTER.

SOME ACCOUNT of an Attempt to enforce the Act of 3 & 4 Vict. c. 85., with reference to the Employment of Children in sweeping Chimneys, 1856 to 1863.

In October 1855 a chimney sweep was charged before the magistrates at the Town Hall, Leicester, with illtreating a child. In consequence, a number of gentlemen formed themselves into an association for the purpose of carrying out the provisions of the Act of 3 & 4 Vict. chap. 85., which renders it illegal to employ any child or young person under the age of 21 years to ascend or descend any chimney or flue for the purpose of sweeping the same.

On inquiry it was found that about 37 children were employed in the town by 19 master sweeps. Notice was given to these men and the public that after the 1st of January 1856 any person found employing children in this illegal occupation within the borough would be prosecuted. An address was issued stating the grounds on which this step was taken, in order that there might be no misunderstanding on the part of the public. To obviate any reasonable complaint on the part of the sweeps, that the notice was short, and that they could not follow their occupation for want of machines, a new machine was presented by the association to each man; the whole cost being about 57*l.*

On the first of March following all the master sweeps in the county of Leicester were likewise presented with machines, under a written promise from each of them that he would thenceforth discontinue the use of boys.

The whole number of children and young persons illegally employed in the town and county of Leicester was found to be upwards of 100.

The cost of the machines presented to the master sweeps was 147*l.*

It was soon found that many of the sweeps in the county, notwithstanding their written engagement, were continuing the use of "climbing boys," which rendered it necessary to adopt measures to detect and prosecute offenders.

Another circumstance which came to the knowledge of the association was at first rather startling, though when it came to be considered not at all surprising, namely, that many of the 100 children thus liberated in Leicestershire were bought up and carried off to other counties, still to be kept to their cruel and illegal occupation.

The undersigned acted as treasurer to the association, and not a few cases came to his knowledge where the children were taken to distances of from 20 to 100 miles from Leicester.

It appeared, therefore, to those who took the most interest in the subject, that an attempt should be made to extend the association so as to lead ultimately to the abolition of the system throughout the country.

In January 1857 the Midland Association was formed intended to cover the counties of Leicester, Derby, Nottingham, Northampton, and part of Warwick; and strenuous efforts were made to carry out the law. Before entering upon prosecutions, however, a considerable sum was expended in advertising and printing, so that by the press and other means the public might be well informed, and an opportunity be given to the men to dismiss the boys and to conform to the law.

In addition, various places outside the association, as Newcastle, Birmingham, Grantham, Lincoln, &c., were visited and public meetings held for the purpose of arousing public opinion upon the subject. In some of these towns associations were formed resulting in a greater or less degree of success.

For about three years the Midland Association was kept alive and strenuous efforts were made to carry out the law.

In June 1858 an influential deputation waited upon the Home Secretary (the Right Honourable S. H. Walpole) to ask that returns might be obtained through the police authorities of the number of young persons still employed in this occupation, with other information bearing upon the subject. The result of the application was not what the committee desired, and no further effort was made in that direction. Climbing Boys

It was found that nothing but a constant system of detecting offenders, and prosecutions resulting therefrom, could be effective in putting a stop to the system. The difficulty, indeed *impossibility* of finding suitable persons to undertake the office of detective, and the time required to attend to the business of the association, caused the association to virtually cease to exist after about three years.

The undersigned, however, has still kept up the prosecution of offenders at his own expense in the town and county of Leicester to the present time, and it gives him the greatest satisfaction to be able to state that there is not now, nor has there been for years, a single child employed in sweeping chimneys in the *town* of Leicester, with a population of upwards of 70,000. In the county there are still a few children employed, and prosecutions take place from time to time. The cost of these prosecutions was about 60*l.* in 1862.

In 1856 an application was made to the quarter sessions for the police to receive instructions to watch and inform against offenders, and a circular was issued in consequence by the chief constable. This was supplemented in 1861 by a much more stringent order, and now information is given to a solicitor employed by the undersigned, and prosecutions take place with the aid of the police.

But the efforts of the police and of the undersigned are rendered very much less effective than they would otherwise be if it were not for the fact of children being *regularly employed* in the adjoining counties, where there appears to be no person to take an interest in the subject and to bear the expenses of prosecutions.

The undersigned may here remark that it has been most painful to him to find that there is a regular system established in this country for the hire and *sale* of children for the purpose of carrying on this *cruel* and *illegal* occupation.

Numbers of instances of this kind have come to the knowledge of the undersigned during the time he has taken an interest in this question, and he would venture to remark in conclusion, that in his opinion the continuance of the practice of employing "climbing boys" in Great Britain is highly discreditable to the nation, and moreover that it would not be tolerated for a day if the iniquities of it were properly understood.

E. S. ELLIS.

Leicester,
April 4, 1863.

A deputation to Mr. Walpole on the illegal practice of employing children in sweeping chimneys, with a view to carrying out the provisions of the Act of Parliament on that subject, had an interview with the Home Secretary on Saturday. The deputation consisted of Mr. Biggs, M.P., Mr. Bright, M.P., the Right Hon. M. T. Baines, M.P., Sir J. Paxton, M.P., Mr. Beale, M.P., Mr. Slaney, M.P., Mr. J. D. Harris, M.P., Mr. T. W. Evans, M.P., Mr. H. Pease, M.P., Mr. F. Wedgwood, Etruria, Mr. R. Carr, Alnwick, Mr. J. Cash, Coventry, Rev. E. Maddison, Grantham, Mr. E. Eddison, Leeds, Mr. E. S. Ellis, Leicester, Mr. W. Wood, Manchester, Mr. Alderman Manton, Birmingham, Mr. W. Morgan, Birmingham, and Mr. Glass, London.

Memorial of Employers in the Potteries.

(*Referred to at* page viii.)

To the Right Honourable Sir George Grey, Bart., Her Majesty's Principal Secretary of State for the Home Department.

We, whose signatures are subjoined being manufacturers in the district of Staffordshire, commonly known as the Staffordshire Potteries, having under our consideration the following facts with regard to the employment of children in this district:

I. That children are employed in the potteries at a very early age, and in a way to interfere injuriously with their education.

II. That the majority of the children appear to be taken from school in this district before they are 10 years old. As we are led to believe from the fact that the average age of the first class in 15 out of the 21 national schools of this district is only 10·2 years, and that four-fifths of the children leave before they reach the first class.

III. That in 22 out of about 116 manufactories in the district where inquiry was made, it was found that there were 177 children under 10 years of age, and 576 others under 13 years of age; which leads us to believe that it is the employment in the potteries which causes the early removal of the children from school before noticed.

IV. That this state of things is the cause of various moral and physical evils to the youthful population of this district;

(*a.*) A vast amount of ignorance, as is evinced by the fact that out of 670 working children questioned on the subject, 185 (or 27·6 per cent.) professed themselves unable to read;

(*b.*) That the employment of children at so tender an age is injurious to their health, stunts their growth, and causes in many cases a tendency to consumption, and distortion of the spine, &c., as we have the evidence of competent medical men to testify.

V. That much as we deplore the evils before mentioned it would not be possible to prevent them by any scheme of agreement between the manufacturers as to the employment of children; as a portion only of the employers could be brought to consent to such an agreement.

Taking all these points into consideration, we have come to the conviction that some legislative enactment is wanted to prevent children from being employed at so early an age, and to secure to them at any rate a minimum of education; and we would respectfully urge upon the Legislature, the advisableness of appointing a commissioner to inquire into the matter, and consult as to the best means of remedying the evils complained of.

(Signed)

Minton & Co.	Stoke-upon-Trent.
John Dimmock & Co.	Hanley.
Edwd. Jno. Ridgway	Ditto.
J. W. Parkhurst	Ditto.
Wilkinson & Richard	Ditto.
Joseph Clementson	Ditto.
Josiah Wedgwood & Sons	Etruria.
Geo W. Ashworth & Bros.	Hanley.
William Webberley	Longton.
Frederick Chetham	Ditto.
John Lockett	Ditto.
Thomas Betbury	Ditto.
James Broadhurst	Ditto.
Samuel Elkin	Ditto.
Sampson, Bridgwood, & Son	Ditto.
Charles Allerton & Sons	Ditto.
Pinder, Bourne & Co.	Burslem.
Hope & Carter	Ditto.
Cook, Edye, & H. Calken	Ditto.
John S. Hill	Ditto.
Wm. Adams	Turnstall.
Beech & Hancock	Ditto.
Edwd. Challoner	Ditto.
Wm. Adams & Sons	Stoke.
Elijah Hughes	Cobridge.
Richard Edwards	Dutchall.

Abstract of the Factory Acts, directed by the Right Hon. Sir George Grey, one of Her Majesty's Principal Secretaries of State, to be fixed on a moveable Board, and hung up in the Entrance of every Factory, in pursuance of the 28th Section of the 7 Vict. c. 15.

Explanation of Words.

"Child," means a child under thirteen years of age.—7 Vict. c. 15. s. 73.

"Young Person," means a person of thirteen and under eighteen years of age.—7 Vict. c. 15. s. 73.

"Parent," means parent, guardian, or person having the legal custody of any child or young person.—7 Vict. c. 15. s. 73.

"Employment."—Any person working, whether for wages or not, or as a learner or otherwise, either in any manufacturing process, or in any labour incident to any manufacturing process, or in cleaning any part of the factory, or in cleaning or oiling any part of the machinery, or in any kind of work whatsoever, save as herein-after excepted, is deemed to be "employed."—7 Vict. c. 15. s. 73.

"Mill-gearing" comprehends every shaft, whether upright, oblique, or horizontal, and every wheel, drum, or pulley by which the motion of the first moving power is communicated to any machine appertaining to the manufacturing process.—7 Vict. c. 15. s. 73.

Nothing in the Factory Acts extends to any young person being a mechanic, artisan, or labourer, working only in making and repairing the machinery or any part of the factory.—7 Vict. c. 15. s. 73.

The enactments respecting the hours of labour do not apply to young persons employed solely in packing goods in a warehouse, or part of a factory not used for any manufacturing process, or for any labour incident to a manufacturing process.—7 Vict. c. 15. s. 73.

Power of Inspectors and Sub-Inspectors.

Every Inspector and Sub-Inspector has power to enter any factory when any person is employed therein, and any school in which children employed in factories are educated, and to take with him the certifying surgeon and any peace officer, and to examine every person whom he shall find in such factory or school, or whom he shall believe to have been employed in a factory within two months next preceding. And every person who shall refuse to be examined, or who shall refuse to sign his name or affix his mark to a declaration of the truth of the matters respecting which he shall have been examined, or who shall conceal or prevent any person from appearing before or being examined by an Inspector or Sub-Inspector, or who shall prevent or delay the admission of an Inspector or Sub-Inspector to any part of a factory or school, is liable to a penalty of not less than three, and not more than ten pounds.—7 Vict. c. 15. ss. 3. 61.

Every inspector and sub-inspector may summon offenders and witnesses.—7 Vict. c. 15. s. 50.

Abstracts and Notices.

This abstract and the following notices, written or printed in legible characters, and fixed on moveable boards (each particular notice being signed by the occupier of the factory or his agent), must be hung up in the entrance of every factory, and so placed as to be easily read by the persons employed.—7 Vict. c. 15. s. 28, and Schd. C.

1. The names and addresses of the Inspector and Sub-Inspector of the district.—7 Vict. c. 15. s. 28, and Schd. C.

2. The name and address of the Surgeon who grants certificates for the factory.—7 Vict. c. 15. s. 28, and Schd. C.

3. A notice of the clock by which the hours of work are regulated; which clock must be a public clock, or some other clock open to public view, approved by an Inspector or sub-inspector.—7 Vict. c. 15. ss. 26. 28, and Schd. C.

4. The times of the day, and amount of time allowed for meals.—7 Vict. c. 15. s. 28, and Schd. C., and 13 & 14 Vict. c. 54. s. 8.

5. All time lost which is intended to be recovered, and all time which shall be recovered.—7 Vict. c. 15. ss. 33. 34, and Schd. C.

6. A notice approved of and signed by an inspector when it is intended to employ children, young persons, and women between seven in the morning and seven in the evening.—13 & 14 Vict. c. 54. s. 6, and 16 & 17 Vict. c. 104. s. 2.

In case any abstract or notice shall become illegible, the occupier of the factory must cause a new copy to be hung up.—7 Vict. c. 15. s. 28.

Registration.

No person under eighteen years of age can be employed in any factory until his or her name has been registered.—7 Vict. c. 15. s. 9, and Schd. B.

Surgical Certificates.

No person under sixteen years of age can be employed without a surgical certificate.—3 & 4 Will. 4. c. 103. s. 14, and 7 Vict. c. 15. s. 9.

The Inspectors are empowered to appoint certifying surgeons.—7 Vict. c. 15. s. 8.

A surgical certificate for each person under sixteen must be obtained before employing the person for whom it is required, except that, when all surgical certificates for a factory are granted by the appointed certifying surgeon, persons may be employed without a surgical certificate for seven working days, or, when the certifying surgeon resides more than three miles from the factory, for thirteen working days.—3 & 4 Wm. 4. c. 103. s. 11, and 7 Vict. c. 15. ss. 16 and 17.

No surgical certificate can be granted, except on personal inspection of the person named therein, and no certifying surgeon can issue a surgical certificate elsewhere than at the factory where such person is to be employed, unless for special cause allowed by an Inspector. Certifying surgeons refusing to grant a certificate, must, when required, certify the reasons for such refusal.—7 Vict. c. 15. s. 11.

Every Inspector and Sub-Inspector may annul any surgical certificate if he shall have reason to believe the real age of the person mentioned therein to be less than that mentioned in the certificate or if the certifying surgeon of the district shall deem such person to be then of deficient health or strength, or by disease or bodily infirmity incapacitated for labour, or liable to be injured by continued employment.—7 Vict. c. 15. s. 14.

The Inspector or Sub-Inspector must give to any person demanding it, a requisition entitling him, on payment of 1*s*., to a certified copy of the register of the birth or baptism of the party whose surgical certificate has been refused or annulled, except when a surgical certificate has been refused or annulled in consequence of deficient health or strength, or of disease or bodily infirmity.—7 Vict. c. 15. s. 13.

No person under sixteen can be employed on proof of real age only.—7 Vict. c. 15. s. 15.

The occupier is to pay the certifying surgeon; but cannot deduct more than threepence from the wages of the person for whom any surgical certificate may have been granted.—7 Vict. c. 15. s. 13.

Employment of Children under 13 Years of Age.

No child under eight years of age can be employed.—7 Vict. c. 15. s. 29.

No child can be employed before six in the morning or after six at night.—16 & 17 Vict. c. 104. s. 1.

No child can be employed on any Saturday after two in the afternoon for any purpose whatever.—16 & 17 Vict. c. 104. s. 1.

No child can be employed more than six hours and thirty minutes in any day, and no child employed before noon shall be employed in the same, or any other factory, after one in the afternoon of the same day, except where young persons and women work only ten hours, and notice thereof has been given to the Inspector of the district, children may be employed ten hours in any one day, on three alternate days of every week; provided such children be not employed in the same, or any other factory, on two successive days, nor after two on any Saturday; and provided such children attend school as required when so employed.—7 Vict. c. 15. ss. 30 & 31; 16 & 17 Vict. c. 104. s. 1.

Any child above eleven, employed solely in the winding and throwing of raw silk, may be employed in the same manner as young persons and women.—13 & 14 Vict. c. 54. s. 7.

School Attendance.

The parent or person having any direct benefit from the wages of any child under thirteen, employed in a factory, must cause such child to attend school.—7 Vict. c. 15. s. 38.

Every child must attend school for three hours between eight in the morning and six in the evening on every working day, except Saturday. But any child attending school after one o'clock between the first of November and the last day of February, is not required to remain in school more than two hours and a half. The non-attendance of every child is excused when he shall be certified by the schoolmaster to have been prevented from attending by sickness or other unavoidable cause, and during any holiday or half-holiday authorized by this Act, or by consent in writing of the Inspector, or, where the schoolroom is situated within the outer boundary of the factory at which such child is employed, when such school shall be closed in consequence of the factory ceasing to be at work during the whole day.—7 Vict. c. 15. s. 38.

When children are employed for ten hours on three alternate days, they must attend school for five hours between eight in the morning and six in the evening on each week day preceding each day's employment, except on Saturdays.—7 Vict. c. 15. s. 31.

School Certificates.

The occupier of every factory in which a child is employed must, on Monday, or other day appointed by an Inspector, obtain a certificate, in the form required, that such child has attended school during the foregone week; and must produce such certificate when required; and must pay for the education of each child any sum the Inspector may require, not exceeding twopence per week. The occupier may deduct from the wages payable to such child, any sum he shall have been required to pay, not exceeding one-twelfth part of such weekly wages.—7 Vict. c. 15. s. 39.

An Inspector may annul a schoolmaster's certificate, if he be of opinion such schoolmaster is unfit to instruct children, by reason of his incapacity to teach them to read and write, from his gross ignorance, or from his not having the books and materials necessary to teach them reading and writing, or because of his immoral conduct, or of his continued neglect to fill up and sign the certificates of school attendance. No certificate granted afterwards by such schoolmaster will be valid, unless with the consent in writing of the Inspector. The schoolmaster, or occupier of a factory, may appeal to the Secretary of State against such decision of the Inspector.—7 Vict. c. 15. s. 39.

Employment of Young Persons and Women.

No young person and no woman can be employed in any factory before six in the morning or after six in the evening, except as hereafter stated.—13 & 14 Vict. c. 54. s. 1.

No young person and no woman can be employed on any Saturday after two in the afternoon, for any purpose whatever.—13 & 14 Vict. c. 54. s. 8.

Between the thirtieth of September and the first of April following, children, young persons, and women may be employed, except on Saturday, between seven in the morning and seven in the evening, under the following regulations and conditions:—A notice of the intention so to employ children, young persons, and women, specifying the period, not being less than one month, during which they are to be so employed, shall be given to an Inspector, and a notice in such form as shall be approved by the Inspector, and signed by the occupier or his agent, and by the Inspector, shall be fixed up and kept fixed up in the entrance of the factory; and during the period specified in such notice no child, young person, and no woman can

be employed before seven in the morning of any day, except Saturday.—13 & 14 Vict. c. 54. s. 6, and 16 & 17 Vict. c. 104. s. 2.

Meal Times.

At least one hour and a half must be allowed for meals to every young person and woman, between half-past seven in the morning and six in the evening. One hour, at one time or at different times, must be given before three o'clock. No child, young person, or woman, can be employed more than five hours before one o'clock without an interval of thirty minutes. During the meal times, stated in the notice, no child, young person, or woman, can be employed in any factory, or be allowed to remain in any room where any manufacturing process is then carried on. All young persons and women must have the times for their meals at the same periods of the day.—3 & 4 Will. 4. c. 13. s. 6; 7 Vict. c. 15. s. 36; and 13 & 14 Vict. c. 54 s. 3.

Holidays.

No child, young person, or woman can work in England or Ireland on Christmas-day or Good Friday, or in Scotland, on any day wholly set apart for the observance of the Sacramental Fast. Children, young persons, and women, must have eight half holidays besides in every year, together or separately, each of which must comprise not less than half the day. Four of such half-holidays must be given between the 15th of March and the 1st of October. No cessation from work is to be deemed a half-holiday, unless notice thereof shall have been fixed up on the previous day in the entrance of the factory. During such half-holiday no child, young person, or woman can be employed in the factory.—3 & 4 Will. 4. c. 103. s. 9, and 7 Vict. c. 15. s. 37.

Recovery of Time lost in Water Mills.

It is not lawful to recover time lost, unless notice thereof shall have been sent to the Sub-Inspector, nor unless notices in the prescribed forms shall have been previously fixed up in the entrance of the factory, and kept so fixed up for the whole time during which the lost time is being recovered.—7 Vict. c. 15. ss. 33 and 34. and Schd. C.

In a factory in which part of the machinery is moved by water, time lost by stoppages from want of, or from too much water, may be recovered within six months next after the stoppage; in order to recover time so lost, any child may be employed between five in the morning and seven in the evening, one hour in each day more than the time to which the ordinary daily labour of children is restricted, except on Saturday, and any young person or woman may be employed eleven hours and a half between five in the morning and seven in the evening, except on Saturday, to recover time so lost, but the times before six in the morning and after six in the evening, during which any such child, young person, or woman is so employed, must not, taken together, exceed one hour.—3 & 4 Will. 4. c. 103. s. 3; 7 Vict. c. 15. s. 33; 13 & 13 Vict. c. 54. s. 4; and 16 & 17 Vict. c. 104. s. 3.

In a factory in which part of the machinery is moved by water, when the stream is so diminished by drought or swollen by flood, that any part of the manufacturing machinery, driven by the water-wheel, has been stopped by reason of such drought or flood, the young persons and women who would have been employed at such machinery, may recover such lost time in the next night following the said day, between six in the evening and six in the morning except on Saturday; but no such young person or woman can be employed during any twenty-four consecutive hours for more than ten hours and a half; and no young person or woman can be employed for more than five hours without a cessation from work of at least thirty minutes.—7 Vict. c. 15. s. 34; and 13 & 14 Vict. c. 54. s. 5.

Limewashing.

All inside walls, ceilings, or tops of rooms, whether plastered or not, and all passages or staircases which have not been painted with oil once within seven years, must be limewashed once every fourteen months. All inside walls, ceilings, or tops of rooms which are painted with oil, must be washed with hot water and soap once every fourteen months.—7 Vict. c. 15. s. 18.

Dangerous machinery and accidents.

No person under eighteen years of age, and no woman, can be employed where the wet spinning of flax, hemp, jute, or tow is carried on, unless sufficient means be employed for protecting them from being wetted, and where hot water is used, for preventing the escape of steam into the room.—7 Vict. c. 15. s. 19.

Every fly-wheel directly connected with the steam-engine or water-wheel, whether in the engine-house or not, and every part of a steam-engine and water-wheel, and every hoist or teagle, near to which children or young persons are liable to pass or be employed, and all those parts of the mill-gearing with which children and young persons, and women are liable to come in contact, either in passing or in their ordinary occupation in the factory, must be securely fenced; and every wheel race must be fenced close to the edge; and the said protection to each part must not be removed while the parts required to be fenced are in motion.—7 Vict. c. 15. ss. 21. 73, and 19 & 20 Vict. c. 38. s. 4.

Where notice in writing is given by an inspector or sub-inspector that any part of the mill-gearing or machinery, or any driving-strap or band, appears to him to be dangerous, and likely to cause bodily injury to the workers in the factory and ought to be immediately fenced, the occupier must within fourteen days securely fence the same, or make application for referring the question of fencing to arbitration, and with the least possible delay appoint an arbitrator, and if the decision in the arbitration be that it is necessary and possible to fence such mill-gearing, machinery, strap, or band, the occupier must fence it accordingly; and at all times keep the same so fenced.—7 Vict. c. 15. s. 43, and 19 & 20 Vict. c. 38. ss. 5. 6.

No child, young person, or woman can be allowed to clean any mill-gearing while it is in motion; and no child, young person, or woman can be allowed to work between the fixed and traversing part of any self-acting machine while the latter is in motion.—7 Vict. c. 15. s. 20.

If any accident occur in a factory which shall cause bodily injury to any person employed, so as to prevent the person injured from returning to his work before nine o'clock the following morning, a written notice thereof must be sent within twenty-four hours of such absence to the certifying surgeon.—7 Vict. c. 15. s. 22.

The certifying surgeon is required to investigate the nature and cause of such bodily injury, and to report thereon to the inspector; and for this purpose the surgeon has the same power as an inspector; may enter any room to which the injured person has been removed.—7 Vict. c. 15. s. 24.

A Secretary of State may empower an inspector to direct an action to be brought on behalf of the person injured for the recovery of damages.—7 Vict. c. 15. s. 24.

The damages are to be paid to the person injured, or for his use and benefit, in such manner as may be approved of by the Secretary of State.—7 Vict. c. 15. s. 25.

Proceedings before Justices.

Complaints must be preferred within two months after the commission of any offence, except offences punishable at discretion by fine or imprisonment, or for working on Christmas-day, Good Friday, or the Sacramental Fast days, or for not giving the eight half-holidays required; in each of which cases the complaints may be preferred within three months.—7 Vict. c. 15. s. 44.

All complaints must be heard by two or more justices acting for the jurisdiction wherein the offence was committed, or for any adjoining jurisdiction, provided the place of hearing be not more than five miles from the place where the offence was committed. Penalties, with costs, may be recovered by distress and sale of the goods and chattels of the party convicted.—7 Vict. c. 15. s. 45.

The occupier of a factory in which any offence has been committed, is in the first instance liable to pay the penalty; but may have any agent, servant, or workman, whom he shall charge as the actual offender, brought by summons before the justices; and if, after the offence has been proved, the occupier shall prove that he had used due diligence to enforce the execution of the Act, and that the agent, servant, or workman committed the offence without his knowledge, consent, or connivance, then such agent, servant, or workman shall pay the penalty instead of the occupier. When it appears to the inspector or sub-inspector that the occupier has used due diligence to enforce the law, and that an offence has been committed without his personal consent, connivance, or knowledge, and in contravention of his orders, the Inspector or Sub-Inspector must proceed against the person whom he shall believe to be the actual offender, without proceeding against the occupier.—7 Vict. c. 15. s. 41.

Penalties.

Any person convicted of having employed any person contrary to the provisions of the Factory Acts, or of having employed a child without a certificate from a schoolmaster where required, such person not being the parent or having any direct benefit from the wages of such child, is liable to a penalty of from one to three pounds for each child or young person so employed; and if such offence was committed during the night, to a penalty of from two to five pounds.—7 Vict. c. 15. s. 56.

The parent or person having the direct benefit from the wages of any child or young person employed in any manner forbidden by the Factory Acts, or who neglects to cause such child to attend school, is liable to a penalty of from five to twenty shillings for each offence.—7 Vict. c. 15. c. 57.

If a person suffers bodily injury in consequence of the occupier having neglected to guard anything required to be securely fenced, or having neglected to fence or keep fenced any part of the machinery, or any driving strap or band, which he shall have received from an inspector or sub-inspector a notice to fence (which remains uncancelled) the occupier is liable to a penalty of from ten to a hundred pounds, which may, except in Ireland, be applied for the benefit of the injured person or otherwise as the Secretary of State shall determine.—7 Vict. c. 15. ss. 43. 60; 14 & 15 Vict. c. 93.

Every person making, giving, signing, countersigning, counterfeiting, or making use of any certificate authorized or required by these Acts, knowing the same to be untrue, or wilfully making, or wilfully conniving at the making any false or counterfeited certificate, or any false entry in any register, or any other account, paper, or notice required by this Act; and every person wilfully making and signing a false declaration on any proceedings under this Act, is liable to a penalty of from five to twenty pounds, or to be imprisoned for any time not more than six months. —7 Vict. c. 15. c. 63.

The penalty for any offence against the Factory Acts for which no specific penalty is provided, is from two to five pounds.—7 Vict. c. 15. s. 64.

Every penalty when received, if not otherwise specially appropriated, must (except in Ireland) be applied, under the the direction of the Secretary of State, in support of the day-schools, for the education of children employed in factories.—7 Vict. c. 15. s. 66, and 14 & 15 Vict. c. 93.

Appeals.

No appeal is allowed against any conviction except for an offence punishable by imprisonment, or when the fine awarded is more than three pounds.—7 Vict. c. 15. s. 68

An appeal may be made to the next court of general or quarter sessions holden not less than twelve days after the conviction; provided notice of such appeal, and of the cause thereof, be given to the Inspector or Sub-Inspector within three days after the conviction, and seven clear days before such session; and a recognizance, with two sureties, must be entered into seven clear days before such session, to appear and try such appeal, to abide the judgment of the Court, and to pay any costs awarded. In case of the dismissal of the appeal, or the affirmance of the conviction, the Court must adjudge the party to be punished according to the conviction, and to pay the costs awarded.—7 Vict. c. 15. s. 70.

Laws and Regulations in Foreign Countries respecting the Labour and Education of Children and Young Persons employed in Trades and Manufactures.

(*Referred to at* page lxxxii.)

CONTENTS.

	Date of Ordinances.	page.
Massachusetts	1836–1858	325
Prussia	9 March 1839	326
„	16 May 1853	326
„	18 Aug. 1853	327
„	12 Aug. 1854	327
Bavaria	15 Jan. 1840	329
„	16 July 1854	329
France	22 March 1841	330
Sweden	22 Dec. 1846	331
Sweden	22 May 1852	331
New Jersey	11 March 1851	331
Rhode Island	1 July 1857	331
Austria	1 May 1860	332
Norway	16 May 1860	332
Saxony	15 Oct. 1861	334
Belgium (no law)		334
Switzerland		334

MASSACHUSETTS.

Commonwealth of Massachusetts.

Secretary's Department, Boston,
September 10, 1862.

Sir,

I take great pleasure in forwarding herewith, agreeably to your request, a copy of the Chapter of the General Statutes of this State, which regulates and prescribes the conditions of the employment of children and young persons in manufacturing establishments.

Accompanying this, I also send for your acceptance, hoping it may be of service to your Honourable Commission in the more general inquiries which they may wish to make concerning the education and moral training of the young, a copy of the Twenty-fourth Annual Report of the Board of Education, which contains all the laws of this Commonwealth now in force upon the subject of education, with explanatory notes.

Trusting that these documents may be of service in the prosecution of the objects of your Commission.

I have, &c.,
Oliver Warner,
Secretary of the Commonwealth.

To Prideaux Selby, Esq.,
Secretary, &c., &c.,
2, Victoria Street, Westminster.

General Statutes of Massachusetts, Chapter 42.

§ 1.—Children of the age of 12 years and under the age of 15 years, who have resided in this state for the term of six months, shall not be employed in a manufacturing establishment, unless within 12 months next preceding the term of such employment they have attended some public or private day school, under teachers approved by the school committee of the place in which said school was kept, at least one term of 11 weeks, and unless they shall attend such a school for a like period during each 12 months of such employment. Children under 12 years of age, having resided in this state for a like period, shall not be so employed unless they have attended a like school for the term of 18 weeks within 12 months next preceding their employment, and a like term during each 12 months of such employment.

§ 2.—The owner, agent, or superintendent of a manufacturing establishment who employs a child in violation of the provisions of the preceding section, shall forfeit a sum not exceeding 50 dollars for each offence, to be recovered by indictment, to the use of the public schools in the city or town where such establishment is situated; and the school committees in the several cities and towns shall prosecute for all such forfeitures.

§ 3.—No child under the age of 12 years shall be employed in any manufacturing establishment more than 10 hours in one day; and the owner, agent, or superintendent who knowingly employs such child for a greater number of hours shall forfeit the sum of 50 dollars for each offence, to the use of the person prosecuting therefor.

§ 4.—Each city and town may make all needful provisions and arrangements concerning habitual truants, and children not attending school, or without any regular and lawful occupation, or growing up in ignorance, between the ages of 5 and 16 years; and also all such byelaws respecting such children as shall be deemed most conducive to their welfare and the good order of such city or town; and there shall be annexed to such byelaws suitable penalties, not exceeding 20 dollars for any one breach; *provided,* that said byelaws shall be approved by the superior court of the county.

§ 5.—The several cities and towns availing themselves of the provisions of the preceding section, shall appoint at the annual meetings of such towns, or annually by the mayor

and aldermen of such cities, three or more persons, who alone shall be authorized in case of violation of such bye-laws, to make the complaint and carry into execution the judgments thereon.

§ 6.—A minor convicted under such byelaw of being an habitual truant, or of not attending school, or of being without regular and lawful occupation, or growing up in ignorance, may, at the discretion of the justice or court having jurisdiction of the case, instead of the fine mentioned in section 4, be committed to any such institution of instruction, house of reformation, or suitable situation provided for the purpose under authority of section 4, for such time, not exceeding two years, as such justice or court may determine.

§ 7.—A minor convicted of either of said offences and sentenced to pay a fine may, in default of payment thereof, be committed to such institution of instruction, house of reformation, or suitable situation provided as aforesaid; and, upon proof that the minor is unable to pay the fine, and has no parent, guardian, or person chargeable with his support able to pay the same, he may be discharged by such justice or court whenever it is deemed expedient, or he may be discharged in the manner poor convicts may be discharged from imprisonment for non-payment of fine and costs.

§ 8.—Warrants issued under this chapter shall be returnable before any justice or judge of a police court, at the place named in the warrant, and the justice or judge shall receive such compensation as the city or town determines.

PRUSSIA.

REGULATIONS for the occupation of youthful workmen in manufactories.

§ 1.—No child under nine years of age can be regularly employed either in manufactories nor in mines, smelting-houses, or stamping mills.

§ 2.—Whoever has not enjoyed a regular instruction of three years, or cannot prove, by a testimonial of superiors of schools, that, besides knowing how to read his mother-tongue he has already had some writing-lessons, ought not to receive any occupation in the above-mentioned establishments, before having completed his 16th year.

An exception hereof can only then be granted, when the manufacturer assures instruction to youthful workmen, by the establishment and maintenance of a school in his own manufactory. To judge whether such a school suffices or not, belongs to the Government, who, in this case, has also to appoint the proportion between the hours of instruction and those of work.

§ 3.—Young people under 16 years ought not to be set at work in these establishments above 10 hours a day.

Should by accident of nature or by misfortune the regular business, in the mentioned establishments, be interrupted, and require, in consequence, more activity, the police may grant a transient prolongation of the appointed working hours.

This prolongation, however, must not exceed one hour daily, and can be granted for the duration of four weeks only.

§ 4.—Between the working hours, (appointed in the preceding §.) every workmen ought to enjoy a whole hour's recreation at noon, quarter of an hour's at morning as well as afternoon, consisting of exercise in the open air.

§ 5.—To employ such young people before 5 o'clock a.m., or after 9 o'clock p.m., or on Sundays, is strictly prohibited.

§ 6. Protestant workmen, who, as yet have not taken part of the holy communion, ought not to be employed in the above-mentioned establishments, during the hours of their religious instruction, appointed by their respective clergymen.

§ 7.—The proprietors of the said establishments, who employ young people, are bound to keep an exact list containing the names, ages, dwellings, name of parents or gnardians, and the time of entrance of his working people in his manufactory; this list is to be kept in the work-room, and, if required, to be presented to the police or superiors of schools.

§ 8.—Each offence against these regulations is to be punished with a fine from 3*s.* to 15*s.* for each child employed against the above stipulated rules.

If the list, described in § 7, is not regularly kept, the proprietor is to be fined the first time with from 3*s.* to 15*s.*, and the second time with from 15*s.* to 7*l.* 10*s.* The police is authorized to have such a list made or completed at the expense of the proprietor, and such expense may be recovered by way of law (force).

§ 9.—Through these regulations the law about the attendance of school will no ways be altered, but the Government is to take measures that the choice of the hours for instruction shall interfere as little as possible with the work of the manufactory where children are employed.

§ 10.—It is left with the officers of the Board of Health, with the police, and with the Exchequer, to make regulations which they think necessary with regard to buildings *x*, *x*, to insure the health and good morals of the workmen. Punishment for this must not exceed the sum of 7*l.* 10*s.*, or imprisonment answering to this sum.

F. W., CROWN PRINCE.

Berlin, March 9th, 1839.

Minister of State.

(No. 3750.) Law relative to some changes in the regulations of the 9th March 1839, about the employment of youthful workmen in manufactories. The 16th of May 1853.

We, Frederic William, by the grace of God King of Prussia, *x*, *x*, order, with the consent of the Chamber (Parliament), as follows:

§ 1.—The employment of youthful workmen, mentioned in § 1 of the regulations of the 9th of March 1839 (code of laws 1839), is to be permitted from the 1st of July 1853 only after their 10th year of age, and from 1st of July 1855 only after their 12th year of age.

§ 2.—From the 1st of October 1853 young people under 16 years of age must not be employed further in the establishments mentioned in § 1 of the regulations, if their father or guardian does not present the conduct-book, mentioned § 3.

§ 3.—The conduct-book, in which must be printed a summary of the regulations for the employment of youthful workmen, will, at the request of the father or guardian, be given by the police, and contains:

1. Name, day, and year of the birth, and religion of the workman.
2. Name, trade, and dwelling-place of the father or guardian.
3. The school certificate, mentioned in § 2 of the regulations.
4. A rubric for the regulations about schools.
5. A rubric for the time of entrance in the establishment.
6. A rubric for the time of leaving it.
7. A rubric for revisions.

The employer has to keep this book, to show it to the police on request, and to return it to the father or guardian at the end of the engagement.

§ 4.—Youthful workmen, till they reach their 14th year of age, must only be employed six hours a day; instruction at schools for three hours, not included in the time for work, will be sufficient for them.

If the carrying out of these regulations should injure the trade of already existing establishments, the Minister for Trade, Industry, and Public Works is authorized, in concert with the Minister of Instruction, to grant exceptions to the precepts for a certain time.

§ 5.—The quarter of an hour's leisure time for the youthful workman in the fore and afternoon, according to § 4 of the regulations, shall be fixed at half an hour.

§ 6.—The time for work fixed in § 5, of the regulations at from 5 o'clock a.m., till 9 o'clock p.m., will be fixed at from 5½ o'clock a.m. to 8½ o'clock p.m.

§ 7.—Every employment of youthful workmen, which comes under the above regulations, must first be given notice of to the police, by the employer. With regard to workmen, employed before the decreeing of this law, this must be done in the space of four weeks.

§ 8.—The employer is obliged besides, to give notice to the police, every six months of the number of workmen employed under 16 years of age.

§ 9.—Infringements of the precepts of § § 1, 2, 4, 5, and 6 of this law, shall be punished according to the first clause of § 8, and infringements of the precepts of §§ 3, 7 and 8 of this law, shall be punished according to the second clause of § 8, of the regulations of the 9th of March 1839. If in five years six infringements have been punished, such an interdictment *must* be acknowledged at least for the space of three months. Any opposition to such an interdictment will be punished from 3*s.* to 15*s.* for every child and for every case.

§ 11.—The execution of these regulations shall be looked to, if necessary, by some inspectors of manufactories, as organs of the police.

These inspectors shall have all the power of the police as far as the execution of this law or the regulations of the 9th of March are concerned.

The Ministers of Trade, Industry, Public Works, Instruction and those of the Interior have to regulate in which way such an inspection is to be formed in a place, and in which

manner its members are to keep up an uninterrupted intercourse with the police and their superiors.

The proprietors of industrial establishments are obliged to permit revisions, on the basis of this law, to be made, at any time even in the night.

§ 12.—The inspectors (chefs de départements) are charged with the execution of the law.

Authentically under our own Signature, Royal Seal, given at Charlottenburg.

F. W.

INSTRUCTIONS relative to the Prussian Laws of 9th March 1839, and 16th May 1853. Dated 18th August 1853, and 12th August 1854.

Relative to the carrying out of the law concerning some changes in the regulations of the 9th of March 1839, with regard to the employment of youthful workmen in manufactories, of the 16th of May of this year (Code of Laws, page 225), the Royal Government will be provided, upon the basis of §12 of that law, as well as of §10 of the above-mentioned regulations, with the following directions:—

I.

First, care is to be taken to have a complete view of all those establishments which come under the precepts of the law. Should there be any doubts as to whether an establishment is to come under the law, a careful investigation should take place as to the nature and purpose of the occupations of the youthful workmen. If it can be proved, that no fixed purpose does exist for the education of the youthful workmen, with a view to their following an independent trade, the law is to be put into practice. In the opposite case, and with regard to scholastic instruction, the general regulations on the attendance at school are to be put into practice, and not the precepts of the law of the 16th of May of this year. This holds also good with regard to the occupations of youthful workmen without the manufactory buildings, viz., the cultivation of fields and gardens for manufacturing purposes, as, for instance, the manufactory of sugar from beet root. Should there occur in such cases any particular hindrances to the attending school, it will be advisable to make the employers responsible for the attendance at school of their workmen, through some police regulations founded on the law of the 11th of March 1850; so that they might be subjected to some punishment for every child they retain at work during school hours without permission of the Superintendent of the schools of the place (*see* "Amtsblatt" of the Royal Government at Magdeburg, 1852, page 65, and Royal Government at Merseburg, 1853, page 40.)

The precepts of §§ 7 & 8 of the law will make it essentially easier to gain a complete view of the respective establishments. The police of the place is to keep a list of the above-named notices, which are to be carried on according to § 8, and of which a copy is to be given at the end of every year to the royal Government.

II.

An investigation is to be made at every establishment which comes under the law of the 16th of May of this year, whether it should want any particular regulations as to:—

A. Its buildings.
B. Its moral tendencies.
C. The nature of the work and its influence on the health.

As to A., the officers of the Board of Works and the Board of Health of the different circles and districts (§ 7 of the law of the 12th of February 1850, code of laws 1850, page 46) are to be commissioned on occasion of their official journeys, and with the assistance of the police, to inspect the respective localities, and report to the Royal Government whatever might offer any occasion for information or propositions with regard to the precepts of the law. If hereby, respecting the care for the maintenance of the health of the youthful workmen, it should become indispensable to make some alterations in already existing localities, the Royal Government has to take care that they are executed in a suitable space of time, and, if necessary, in the way of administrative execution; and in the meantime has, according to circumstances, to interdict the employment of the youthful workmen in such unhealthy localities. As far as it is practicable, such arrangements which have for their aim the maintenance of pure air in the work-rooms of the manufactory, and the removing of the pernicious influences of heat or cold, are to be considered necessary.

New plans of buildings are to be examined with particular care and to be completed according to the requisite directions.

If an establishment in which youthful workmen are employed, should want any police concession, according to the precepts of § 27 seg. of the Board of Trade, regard should be paid in giving the concession to the contents of those directions.

As to B., the officers are to examine whether any, or what particular dangers, according to special circumstances, might menace the youthful workmen in an establishment with regard to their morals. Such dangers are to be met with energy. In general the following considerations are to be observed:—

1. The employment of children together with adults is to be avoided, as far as it is reconcilable with the business of the manufactory; or, at least, as much as possible to be limited; and if unavoidable, it is to be under the particular inspection of the employer. Particular attention is to be paid, that, where it can be avoided, girls under 16 years of age do not work with boys or men at the same time, in the same rooms, and this holds good especially with regard to the manufactories of cigars and printing offices.
2. If youthful workmen are obliged to pass the night away from their home, on account of the distance from it, it must not be suffered that persons of different sexes be received in the same dormitories at the same time. The concession for the letting out of such dormitories, must, according to § 49 of the General Ordinances, be only given to persons of irreproachable and unblameable character. The reception of youthful workmen must only take place with the consent of their parents or guardians.
3. The organs of superintendence which are to be established at every place, are recommended to have an eye on the intercourse of the youthful workmen, on their way to and from the manufactory.
4. The payment of wages to the youthful workmen instead of to their parents or guardians, has proved particularly injurious to morals; since the former, by that means, early gain an independence opposite their relatives, besides its offering occasions to transgressions, which cause the saddest consequences. It however, does not appear admissible straightway to forbid such direct payments, because such a prohibition could easily be avoided, the officers should endeavour to produce the same effect as much as possible, through the organs of superintendence, by inducing the proprietors of manufactories to make it a law to themselves, to pay the wages only to the parents, guardians, or their adult commissioned representatives.
5. The youthful workmen have to take their meals, where space permits it, not in the workrooms, but in other rooms, and care is to be taken that this is done under proper control as to discipline and manners. In general the jurisdiction (officers, commissioners) are to do their best to advance the development of the moral condition of the establishment commended to their care.

As to C. it must be carefully considered which occupations are in general not fit for youthful workmen and those must be entirely forbiden; also what precautions may become necessary to prevent the pernicious consequences of any admissible occupations. The Royal Government is authorized on the basis of the law of the 11th of March 1850, to issue any general as well as special arrangements in this respect.

Owing to the difference of the manner of occupation even for one and the same kind of work, no precise legal directions can be given for all cases. In general we make the following remarks:—

1. The proprietors of such establishments of industry, in which youthful workmen are engaged, and where the work occasions dust, which might fill the rooms with matter, injurious to health, are to be requested to take such precautions which would ensure the circulation of fresh air. In exceptional cases where this cannot be done and where the purifying of air cannot be obtained in this manner, care is to be taken that the youthful workmen are relieved at suitable intervals.
2. Where poisonous matter is concerned, the employment of such workmen is only to be allowed, when there is no danger for life, were it only through some mistake, awkwardness or imprudence. In reference to this, the employment of youthful workmen, when obliged to handle certain matter, especially poisonous colours, can be entirely forbidden or at least be bound to certain strictly controlled conditions and precepts.
3. The employment of youthful workmen in a long continued stooping position is not to be allowed without

such precautions which would prevent the spine becoming crooked, or any injury to health.

The organs of superintendence have to convince themselves, from time to time, of the observance of the given precepts, and report the result of their review to the Royal Government.

III.

The attendance at school of the youthful workmen is, in conformity with the law of the 16th of May of this year, to be arranged as follows :—

A. Children, who ought to attend school, must henceforth be employed no longer than six hours, and receive daily, at least, three hours' instruction at school. This instruction may be given to them at manufactory schools erected at the cost of the manufacturers, or else at the public schools, but in both cases, regulations are to be made that the children, who work in the forenoon, receive their instruction in the afternoon, and those who work in the afternoon receive theirs in the forenoon. The arrangement of the time and hour, according to the special circumstances of the place, remains with the Royal Government; care must be taken, however, that the manufactory schools have the same claims laid to them as the public schools, according to the decree of 9th of October 1851.

Exceptions to the precept of § 4, can, according to its second aliena, be granted by us, as soon as already existing establishments should, by the execution of this precept, be deprived of their necessary power of working. Such motions should, however, be carefully examined, and be granted only if the proprietors of manufactories declare themselves ready to erect manufactory schools, and let the hours of instruction in those schools precede the work in the manufactory.

B. For children who have left school, the establishment of assistant schools (finishing schools) is to be promoted. It has not appeared proper to introduce a legal compulsion for the establishment or the attendance of such schools, as the prosperity of these schools is only to be expected from the voluntary and zealous participation and co-operation of the employer, parents, working children, and officers; but officers must try, so much the more, to excite the good will of the associates, setting before them the blessing which must arise to all from the furtherance of such schools.

As regards the time, the use of early morning hours for these schools is much to be recommended; in no case, however, is it to be allowed to open them on Sundays or Feast-days, during the hours of Divine Service, either in the morning or afternoon. The Royal Government has to look to this in particular.

IV.

The conduct or workmen's books (arbeitsbücher, livres d'ouvrier), which are to be distributed by the police according to § 3 of the law of the 16th of May of this year, the Royal Government has to provide for and has to deliver them to the officers of the respective districts in return for the payment of the expenses. Hereby is to observe :—

1. In these books is to be printed a summary of the general and particular ordinances relative to the occupation of youthful workmen in the respective districts. This summary must not only contain the material precepts of §§ 1, 2, 3, 7, and 8 of the regulations, and §§ 1, 2, 4, 5, 6, 7, 8, and 9 of the law, but also those police ordinances which the Royal Government may have occasion to issue, according to the before-named instructions.
2. The summary is also to be hung up, in large print, publicly in every manufactory, so that every one who enters the place may see it.
3. The workmen's books may be delivered to the petitioner as soon as desired, in order to have the 1st, 2nd, and 3rd rubric supplied by the respective clergymen and members of the board of schools (under the setting of the seal of the latter), and against payment of the above-named expenses, but without the signature of the police. If the respective clergymen and members of the board of school be not at the place, the (petitioners) have first to collect the materials, which the police have to enter into the workmen's books.
4. The rubrics 4 and 5 must be filled up by the police, and the conduct-book, signed by them, and furnished with their seal, is then to be handed over to the petitioner (the father or gurdian of the workman).
5. All observations are to be entered by the revising persons into the 7th rubric, which must contain several blank leaves, as soon as such an observation may have given rise to any admonition in reference to the occupation or to the attendance of school of a child. Such observations are also to be entered into the books.
6. In every place the police have to keep a running list of all workmen's books which have been distributed there, with the date of their delivery, the name of the workman, that of his father or guardian, and his employer.
7. At the change of an employer the 5th and 6th rubric is to be filled up by the police, according to the certificated statements of the petitioner, and all concerning it is to be added in the list. (No. 6.)

V.

All violations of the above ordinances are to be opposed with energy; in particular, every extension of the working hours above the allowed time, and the employment of youthful workmen during night (from 8½ o'clock in the evening till 5½ o'clock in the morning), or on Sundays and feast days (which would come under the law), is, as a matter of course, most severely to be reproved. Where it should become necessary to appoint some special manufactory inspectors, according to § 11 of the law of the 16th of May of this year, the Royal Government has to make restrictive regulations, with the addition of a register containing the industrial establishments which are to be taken into consideration, together with their situations and the number of workmen employed in them. Where this does not appear necessary the Royal Government has to commission the "counsellors of departments" to visit the manufactories in person as much as possible, in order to convince themselves that the law be properly executed. The inspectors are to be kept to a regular and careful inspection, and furnished with well defined instructions. The formation of particular deputations commissioned to look to the observance of these regulations is to be commended, and the Royal Government must do all they can to further such combinations.

The care of this important object, with the foregoing regulations and notifications, we put with confidence into the hands of the Royal Government, and expect their official report within six months relative to their general arrangements with regard to the foregoing propositions.

Berlin, August 18th, 1853.

The Minister for Trade, Industry and Public Works,
Von der Heydt.

The Minister for Ecclesiastical Instruction and Medicinal Affairs, Von Raumer.

The Minister of the Interior,
By order of
Von Manteuffel.

To all Royal Governments (with the exception of that at Segmaringen), and to the Royal Police Presidency in this place. IV. 9835. Wl. f. H.
16597. M. d. g. A.
II. 9294. M. d. T.

The total of the regulations relative to the employment of youthful workmen in manufactories, mines, forges, and pool-works, which, according to § 3 of the law of the 16th of May of this year, is to be printed into the work (men's) books, is, as we hereby order, to be communicated, not only to the Royal Mine Courts, but also to the superior of every mine, forge (smelting-house) or pool-work. This holds good with regard to all police regulations, which may be issued in future in single districts by the police; on the basis of the law of the 11th March 1850, in order to regulate further the employment of youthful workmen, according to the instructions contained in the circular-enactment of the 18th of August of this year.

If any regulations respecting the work and occupations, which occur in mines, forges, (smelting-houses) or pool-works, should become necessary, the police, (who have also to look to the execution of the law of the 16th of May of this year, and who have to superintend the intercourse of the youthful workmen, through their organs, especially through the inspectors of manufactory, who may be appointed according to § 11 of the law) must assure themselves of the agreement of the respective Mine Courts, before issuing any orders.

According to former experiences it is, however, already to be considered as firmly established, that youthful workmen under 16 years of age cannot be employed in mines (under ground) without injury to their health.

The drawing of windlasses and wheel-barrows on ascending roads is to be considered as injurious to youthful workmen amongst the work *above ground*.

We order, therefore, on the basis of § 10 of the regulations of the 9th of March 1839, and of § 10 of the law of the 16th of May of this year, that such occupations be no longer permitted.

These regulations must be published by the Government paper in any circuit, where occasion may arise for it, and any transgression against them shall be threatened with punishment on the basis of the law of the 11th of March 1850.

Berlin, August 12th, 1854.

The Minister of Instruction and of Ecclesiastical and Medicinal Affairs.

Von Raumer.

The Minister for Trade, Industry, and Public Works,

By representation,

Von Pommer Esche.

The Minister of Interior,

By Order of

Von Manteuffel.

To all Royal Governments and the Royal Police Presidency in this place.

BAVARIA.

Copy Extract from Despatch of A. G. Bonar, Esq., Secretary of Legation at the Court of His Majesty the King of Bavaria, addressed to A. H. Layard, Esq., M.P., Under Secretary of State for Foreign Affairs.

Sir, Munich, June 16, 1862.

In conformity with the instructions contained in your despatch addressed to me on the 9th ultimo, and which reached me on the night of the 23rd, I have now the honour to transmit to you double copies, with their translations, of such laws or ordinances as are in force in Bavaria for regulating the employment of children and young persons in factories and trades.

Independent of the above, which are the only ordinances legally enforced in this country, the proprietors of many of the larger manufactories have established private rules of a very liberal and humane character for adjusting the labour and improving the condition of their workpeople, and I must admit that throughout this country the treatment of young persons so employed is generally kind and considerate, and a proper willingness is shown by masters of factories to allow them free hours for their education.

By law every child is bound to attend the district week-day schools up to his 13th year, and after that age to attend further the Sunday schools up to his 16th year fully accomplished.

I have, &c.

(Signed) A. G. G. Bonar.

Enclosure No. 1 in Mr. Bonar's Despatch to Mr. Layard, Munich, June 16, 1862.

Ordinance, January 15, 1840.

Translation by Mr. Lonsdale.

Royal Ordinance relative to the Employment in Factories of children under Obligation to attend School on working days.

Bavarian Official Gazette of January 28, 1840.

Lewis, D.G., King of Bavaria, &c. &c. &c.

In consideration of the injurious effects produced by precocious and over-exertion, together with the neglect of school and religious instruction occasioned by the employment in factories and large workshops of children under obligation to attend school on working days, and with a view in connexion therewith to the health and the moral and bodily development of such children, we have resolved for as long as we shall not direct otherwise on instituting the following regulations:—

Art. I.—No child under the attained age of *nine* years shall be admitted into factories, or mining, forge, and foundry works, with the purpose of regular employment.

Art. II.—The admission of a child *having attained* the age of *nine* years, to such employment, can only take place on the grounds of an official medical certificate of the bodily capability of the same for the nature of the intended employment, and that the health and the further physical development are not endangered thereby; and also of a certificate of the Local School Inspection stating the steady attendance at school, and the acquirement of the degree of education prescribed for the age of nine years.

Art. III.—The maximum of the working time for children from their *ninth* to their *twelfth* year is fixed at *ten* hours per day.

The same must never commence before 6 o'clock in the morning, and must end at latest at 8 o'clock in the evening.

A full hour is also to be granted to these children for their dinner, about from 11 to 12 o'clock, according to the local customs and usage, and besides which, in the course of the fore and after noon, half an hour is to be allowed them for recreation and exercise outside of the establishment.

Art. IV.—In respect to the further regulated fulfilment of the school duties on the part of such children, it will suffice if the children, during the regular working time either

(*a*) participate for at least two hours every day in the public local instruction, or

(*b*) if they receive for two hours daily the requisite school and religious instruction in a separate private establishment or factory school.

In both cases these children are to be subjected to the yearly school examination.

Art. V.—In respect to the above-mentioned establishments for private instruction, or so-called factory schools, the following regulations are laid down.

(*a*) Only such teachers who are able to prove the stipulated qualifications can be employed.

(*b*) In no school of this description can more than fifty children at a time receive instruction; and the same can never be given before 6 in the morning or after 6 in the evening.

(*c*) The fixing of the school hours can only take place after previous consultation with the school authorities, and their concurrence.

(*d*) The instruction imparted in such establishments must be according to the existing general regulations and under the supervision and direction of the school authorities as established by law.

Art. VI.—These children will have to attend without exception the public preparatory church instruction for receiving as Catholics the Holy Confession and Communion, and, as Protestants, confirmation, unless this instruction has been already afforded to them by the respective clergymen of the factory schools.

Art. VII.—Owners of factories and workshops, as well as their empowered representatives who receive and employ children under obligation to attend school on working days, in contravention of the above regulations, subject themselves to be unforbearingly prosecuted for a fine, according to the nature of each case, of from five to fifty florins.

They are likewise bound to take, in common with the clergyman of the parish, the requisite measures that the morals of the children shall be properly watched over and preserved from the contaminating and seductive influence of grown up factory workmen.

The issue of a prohibition of the employment in the factory of children under obligation to attend schools on working days, will be the immediate result of negligence in the fulfilment of the above precautionary duty being proved.

The same have finally to keep an exact register of the children under obligation, &c. employed in their establishment, and to have it ever in readiness on the premlses to show on demand to the authorities whenever they may choose to apply for it for examination and reference.

Art. VIII.—We make it the especial duty of the respective police and school authorities to watch over, with the greatest solicitude, in the sense expressed in these regulations, the factories and workshops in their districts, to put an end at once to any evidently improper state of things, and to prosecute rigorously the infraction of these regulations.

Our Minister of the Interior is charged with the promulgation and execution of this ordinance.

(Signed) Lewis.
(Signed) Von Abel.
By Royal Command,
(Signed) Franz von Cobell,
General Secretary.

Munich, January 15, 1840.

Enclosure No. 2.—Ordinance July 16, 1854.

Translation by Mr. Lonsdale.

Royal Ordinance respecting the Sanitary and Moral Police Guardianship of youthful Workers in Factories.

Bavarian Official Gazette of July 25, 1854.

Maximilian II., D.G. King of Bavaria, &c. &c. &c,

We have decided, for the partial alteration and completion of the ordinance of the 15th January 1840, respecting the employment in factories of children under obligation to attend schools on working days, to order, for as long as we shall not otherwise direct, as follows:—

Art. I. The admission of children under obligation to attend schools on working days to a regular employment in

factories and large workshops, is conditional on their having completed their *tenth* year, and proof being given of their having received the elementary education consistent with that age, as well as the corresponding religious instruction.

Art. II. The maximum of the working time for such children is fixed at *nine hours* per diem.

Their employment for night work is never, and under no conditions, to occur.

Art. III. *Three hours* are to be appropriated daily during the said working time to the school instruction of such children.

In other respects, and as far as no alteration is introduced by the present ordinance, the entire regulations of the order of the 15th January 1840, respecting the employment in factories of children under obligation to attend schools on working days, remain in force, and the same are to be universally and strictly carried out, and their fulfilment watched over.

The proprietors of factories and of large workshops are especially enjoined to employ children under obligation to attend schools on working days, always under the superintendence of a well known respectable workman or overseer, and as much as possible to keep the sexes separate.

Our State Ministry of the Interior is charged with the promulgation and execution of this ordinance.

(Signed) Max.
(Signed) Von Zwehl.
(Signed) Count Reigersberg.

By royal command,
(Signed) Councillor Von Bezold,
General Secretary.

Nymphenburg, July 16, 1854.

FRANCE.

Loi, relative au Travail des Enfants employés dans les Manufactures, Usines ou Ateliers.

Au Palais des Tuileries, le 22 Mars 1841.

(Promulguée le 24 Mars 1841.)

Louis-Philippe, Roi des Français, à tous présens et à venir, salut.

Nous avons proposé, les Chambres ont adopté, *nous avons ordonné* et *ordonnons* ce qui suit:

Art 1er. Les enfants ne pourront être employés que sous les conditions déterminées par la présente loi,

1° Dans les manufactures, usines et ateliers à moteur mécanique ou à feu continu, et dans leurs dépendances;

2° Dans toute fabrique occupant plus de vingt ouvriers réunis en atelier.

Art. 2. Les enfants devront, pour être admis, avoir au moins huit ans.

De huit à douze ans, ils ne pourront être employés au travail effectif plus de huit heures sur vingt-quatre, divisées par un repos.

De douze à seize ans, ils ne pourront être employés au travail effectif plus de douze heures sur vingt-quatre, divisées par des repos.

Ce travail ne pourra avoir lieu que de cinq heures du matin à neuf heures du soir.

L'âge des enfants sera constaté par un certificat délivré, sur papier non timbré et sans frais, par l'officier de l'état civil.

Art. 3. Tout travail entre neuf heures du soir et cinq heures du matin est considéré comme travail de nuit.

Tout travail de nuit est interdit pour les enfants au-dessous de treize ans.

Si la conséquence du chômage d'un moteur hydraulique ou des réparations urgentes l'exigent, les enfants au-dessus de treize ans pourront travailler la nuit, en comptant deux heures pour trois, entre neuf heures du soir et cinq heures du matin.

Un travail de nuit des enfants ayant plus de treize ans, pareillement supputé, sera toléré, s'il est reconnu indispensable, dans les établissements à feu continu dont la marche ne peut pas être suspendue pendant le cours des vingt-quatre heures.

Art. 4. Les enfants au-dessous de seize ans ne pourront être employés les dimanches et jours de fêtes reconnus par la loi.

Art. 5. Nul enfant âgé de moins de douze ans ne pourra être admis qu'autant que ses parents ou tuteur justifieront qu'il fréquente actuellement une des écoles publiques ou privées existant dans la localité. Tout enfant admis devra, jusqu'à l'âge de douze ans, suivre une école.

Les enfants âgés de plus de douze ans seront dispensés de suivre une école, lorsqu'un certificat, donné par le maire de leur résidence, attestera qu'ils ont reçu l'instruction primaire élémentaire.

Art. 6. Les maires seront tenus de délivrer au père, à la mère ou au tuteur, un livret sur lequel seront portés l'âge, le nom, les prénoms, le lieu de naissance et le domicile de enfant, et le temps pendant lequel il aurait suivi l'enseignement primaire.

Les chefs d'établissement inscriront,

1° Sur le livret de chaque enfant, la date de son entrée dans l'établissement et de sa sortie;

2° Sur un registre spécial, toutes les indications mentionnées au présent article.

Art. 7. Des règlements d'administration publique pourront,

1° Étendre à des manufactures, usines ou ateliers, autres que ceux qui sont mentionnés dans l'article 1er, l'application des dispositions de la présente loi;

2° Élever le minimum de l'âge et reduire la durée du travail déterminés dans les articles deuxième et troisième, à l'égard des genres d'industrie où le labeur des enfants excéderait leurs forces et compromettrait leur santé;

3° Déterminer les fabriques où, pour cause de danger ou d'insalubrité, les enfants au-dessous de seize ans ne pourront point être employés;

4° Interdire aux enfants, dans les ateliers où ils sont admis, certains genres de travaux dangereux ou nuisibles;

5° Statuer sur les travaux indispensables à tolérer de la part des enfants, les dimanches et fêtes, dans les usines à feu continu;

6° Statuer sur les cas de travail de nuit prévus par l'article troisième.

Art. 8. Des règlements d'administration publique devront,

1° Pourvoir aux mesures nécessaires à l'exécution de la présente loi;

2° Assurer le maintien des bonnes mœurs et de la décence publique dans les ateliers, usines et manufactures;

3° Assurer l' instruction primaire et l'enseignement religieux des enfants;

4° Empêcher, à l'égard des enfants, tout mauvais traitement et tout châtiment abusif;

5° Assurer les conditions de salubrité et de sûreté nécessaires à la vie et à la santé des enfants.

Art. 9. Les chefs des établissements devront faire afficher dans chaque atelier, avec la présente loi et les règlements d'administration publique qui y sont relatifs, les règlements intérieurs qu'ils seront tenus de faire pour en assurer l'exécution.

Art. 10. Le Gouvernement établira des inspections pour surveiller et assurer l'exécution de la présente loi. Les inspecteurs pourront, dans chaque établissement, se faire représenter les registres relatifs à l'exécution de la présente loi, les règlements intérieurs, les livrets des enfants et les enfants eux-mêmes: ils pourront se faire accompagner par un médecin commis par le préfet ou le sous-préfet.

Art. 11. En cas de contravention, les inspecteurs dresseront des procès-verbaux, qui feront foi jusqu'à preuve contraire.

Art. 12. En cas de contravention à la présente loi ou aux règlements d'administration publique rendus pour son exécution, les propriétaires ou exploitants des établissements seront traduits devant le juge de paix du canton et punis d'une amende de simple police qui ne pourra excéder quinze francs.

Les contraventions qui résulteront, soit de l'admission d'enfants au-dessous de l'âge, soit de l'excès de travail, donneront lieu à autant d'amendes qu'il y aura d'enfants indûment admis ou employés, sans que ces amendes réunies puissent s'élever au-dessus de deux cents francs.

S'il y a récidive, les propriétaries ou exploitants des établissements seront traduits devant le tribunal de police correctionnelle et condamnés à une amende de seize à cent francs. Dans les cas prévus par le paragraphe second du présent article, les amendes réunies ne pourront jamais excéder cinq cents francs.

Il y aura récidive, lorsqu'il aura été rendu contre le contrevenant, dans les douze mois précédents, un premier jugement pour contravention à la présente loi ou aux règlements d'administration publique qu'elle autorise.

Art. 13. La présente loi ne sera obligatoire que six mois après sa promulgation.

La présente loi, discutée, délibérée et adoptée par la Chambres des Pairs et par celle des Députés, et sanctionnée par nous cejourd'hui, sera exécutée comme loi de l'État.

Donnons en Mandement à nos Cours et Tribunaux, Préfets, Corps administratifs, et tous autres, que les présentes ils gardent et maintiennent, fassent garder, observer et maintenir, et pour les rendre plus notoires à tous, ils les fassent publier et enregistrer partout où besoin sera; et, afin que se soit chose ferme et stable à toujours, nous y avons fait mettre notre sceau.

Fait au palais des Tuileries, le 22e jour du mois de Mars, l'an 1841.

Signé LOUIS PHILIPPE.
Par le Roi.
Le Ministre Secrétaire d'état de l'agriculture et du commerce.
Signé L. CUNIN GRIDAINE.

Vu et scellé du grand sceau.
Le Garde des sceaux de France, Ministre Secrétaire d'Etat au département de la justice et des cultes.
Signé N. MARTIN (du Nord).

SWEDEN.

Translated from the Swedish.

EXTRACTS from the ROYAL ORDINANCE for the Regulation of Manufactures and Handicrafts, dated Stockholm, December 22, 1846.

ART. IV., § 32.

Clause 4. No one may be engaged as apprentice or operative in any factory or handicraft who is not full 12 years of age; nor must the contract, when the apprentice is under age, extend beyond the time at which he becomes of age. Contract with an apprentice of full age must not extend beyond the period of three years.

§ 33. In every case an apprentice or other workman who has completed his 18th year and has attained satisfactory proficiency and knowledge in any kind of handicraft, presenting testimony thereof from an expert and trustworthy person, shall be entitled, provided he has been a partaker of the Holy Communion, and there is nothing serious brought against his character, to receive from the manufactory or handicraft society concerned, if he resides in a town, or if he dwells in the country from the parish authorities, his certificate as journeyman, on payment of a fee of one rix dollar. Instead of the manufactory or society, where such does not exist, the magistrates shall be competent to confer journeyman's certificates. Any one showing particular aptitude for the trade he has chosen, and who is, moreover, known for steadiness and trustworthiness, may, as an exception, obtain his certificate as journeyman on completing his 16th year. When an apprentice is admitted as journeyman his indenture shall be considered to have lapsed.

§ 36. Manufacturers and handicraftsmen are in duty bound to be watchful that workmen in their employ, especially when as minors they dwell and board with their masters, are kept in the fear of God, orderly conduct, and good manners; and if they have not before acquired the knowledge mentioned in § 3, litt. *a*,* that they receive instruction therein on such days and at such hours as the master appoints, and that they should be kept to frequenting Sunday schools and other places of instruction designed for working men. The master shall also be bound, either by himself or through some other person, to instruct apprentices in his trade, in which respect journeymen also shall be bound to render assistance; and to pay proper regard to the health and strength of workmen in his employ in reference to their treatment and tasks set them.

Translated from the Swedish.

His Royal Majesty's gracious PROCLAMATION having reference to special Regulations in respect of the Employment of Persons under Age in Factories and Handicrafts.

Given at the Palace of Stockholm, May 22, 1852.

We, Oscar, by the grace of God, King of Sweden and Norway, the Goths and Vandals, make known, That whereas We, in § 36 of the ordinance for regulating manufactures and handicrafts, dated 22d December 1846, have enjoined the observance of various instructions having for object the care and promotion of factory and handicraft labourers' health, morality, and necessary education, have seen reason, in accordance with a loyal representation made to that effect, further to enact, in reference to this matter, as follows:—

§ 1. No labourers under 18 years of age may be employed in factories within this kingdom during night time, from 9 o'clock in the evening to 5 o'clock in the morning.

§ 2. If this prohibition is transgressed the owner of the factory shall be fined 6 rix dollars, 32 shillings, for every person employed in contravention of the prohibition.

§ 3. Any manufacturer or handicraft master who is found to have engaged at work children under 12 years of age, in contravention of § 32, clause 4, of the ordinance for regulating manufactures and handicrafts, or who has omitted to observe what manufacturers and handicraft masters are enjoined to do in the before mentioned § 36 of said ordinance respecting due care for the health, morality, and education of his labourers, shall be subject to a similar fine.

§ 4. As regards the distribution of the amounts of fines enacted in the two paragraphs next preceding, as also their commutation in case means of payment are wanting, the procedure shall be adopted which has been laid down for similar cases in §§ 48 and 49 of the ordinance for regulating manufactures and handicrafts.*

To which due obedience must be rendered by every one concerned. In further testimony, We have signed this with Our own hand, and caused Our royal seal to be appended thereunto.

(Seal) OSCAR.
J. F. FAHRÆUS

Palace of Stockholm, May 22, 1852.

NEW JERSEY.

STATE OF NEW JERSEY.

Department of State, Trenton,
SIR, September 10, 1862.

IN accordance with the request contained in a circular in behalf of "Her Majesty's Commissioners for "Inquiring into the Employment of Children and Young "Persons in Trades and Manufactures," addressed to the undersigned, I have the honour to forward herewith a copy of a law of the State of New Jersey, designed for the protection of minors employed in manufactories, it being the only law on the subject in the statute books of New Jersey.

It gives me great pleasure to facilitate, even in a small degree, so laudable an object.

I have, &c.,
W. S. JOHNSON,
Secretary of State.

P. Selby, Esq.,
Secretary, &c., &c.,
2, Victoria Street, Westminster.

STATE OF NEW JERSEY.

AN ACT to limit the Hours of Labour and to prevent the Employment of Children in Factories under Ten Years of Age.

§ 1.—Be it enacted, by the Senate and General Assembly of the State of New Jersey, that labour performed during a period of 10 hours on any day in all cotton, woollen, silk, paper, glass, and flax factories, and in manufactories of iron and brass, shall be considered a legal day's labour.

§ 2.—And be it enacted, that hereafter no minor engaged in any factory shall be holden or required to work more than 10 hours on any day, or 60 hours in any week; and that hereafter no minor shall be admitted as a worker under the age of 10 years in any factory within this state; that if any owner of, or employer in any factory, shall knowingly employ any such minor, or shall require any minor over the age of 10 years to work more than 10 hours on any day, or sixty hours in any week, he shall be adjudged to pay a penalty of 50 dollars for each offence, to be sued for and recovered in an action of debt, in the name of the overseer of the poor of the township in which such minor may be employed, together with costs of suit, and for the benefit of such minor.

Approved, March 11th 1851.

RHODE ISLAND.

BY the law, chapter 139, of the revised statutes of the State of Rhode Island and Providence Plantation (1st July 1857), it is provided as follows:—

§ 21. No minor under the age of 12 years shall be em-

* §3, litt. *a*. To have partaken of the Holy Communion, be master over himself and his own property, be of good repute and able to write legibly, and work the four first rules of arithmetic.

* By § 48, clause 1, one half of the penalty is given to the prosecutor or plaintiff, the other half "shall, when imposed in consequence of a prosecution instituted in reference to the carrying on of a handicraft or baker's, brewer's, or butcher's business in a town, revert to the funds of the handicraft guild, and when imposed in reference to the carrying on of any other business in a town, to the funds of the society of manufacturers in that town, provided there exists such a society, but otherwise, as well as when the penalty has been incurred in respect of the carrying on of a trade in the country, to the poor.

Clause 2. The sums which, pursuant to this Act, are received by a manufacturers' or handicraft society, shall constitute a fund, from which the society may defray necessary expenses and grant relief to old and decayed masters and journeymen, and to deceased masters' and journeymen's poor widows and children; it being obligatory on each society to render an account of the management of these means to the magistrates at the commencement of every year.

§ 49. In default of means to pay the fines imposed under this Act, they shall be computed according to the general rules now or in future established with regard to fines.

ployed in or about any manufacturing establishment, in any manufacturing process, or in any labour incident to a manufacturing process.

§ 22. No minor under the age of 15 years shall be employed in any manufacturing establishment in this state, unless such minor shall have attended school for a term of at least three months in the year next preceding the time when such minor shall be so employed, and no such minor shall be so employed for more than nine months in any one calendar year.

§ 23. No minor who has attained the age of 12 years, and is under the age of 15 years, shall be employed in any manufacturing establishment more than 11 hours in any one day, nor before 5 o'clock in the morning, nor after 7½ o'clock in the evening.

§ 24. Any owner, employer, or agent of a manufacturing establishment who shall knowingly and wilfully employ any minor, and any parent or guardian who shall permit or consent to the employment of his or her minor child or ward, contrary to the provisions of the next three preceding sections of this chapter, shall be liable to a penalty of 20 dollars for each offence, to be recovered by complaint and warrant before any justice of the peace in the town in which such child shall reside, or in which the manufacturing establishment in which such child shall have been employed shall be situated, one half thereof to the use of the complainant and the other half thereof to the use of the district school of the district in which such manufacturing establishment shall be situated, or if in the city of Providence, to the use of the public schools of said city.

§ 25. Every such complaint shall be commenced within 30 days after the offence complained of shall have been committed, with right of appeal as in other criminal cases.

§ 26. Labour performed in any manufacturing establishment, and all mechanical labour during the period of 10 hours in any, one day shall be cousidered a legal day's work, unless otherwise agreed by the parties to the contract for the same.

AUSTRIA.

The present law respecting trades and manufactures in Austria came into operation on the 1st May 1860.*

In transmitting translations of §§ 86 and 87 of the above law, the imperial minister for commerce remarks that "in "the publication of these regulations all former laws relating "to the employment of children in factories were annulled, "and paragraphs 86 and 87 of the new law have been since "then solely and alone of legal effect in this matter."

§ 86.—*Employment of Children.*

"Children under ten years of age are never to be employed in large factories, and those over ten but under twelve years old only on presenting a permission that has been drawn up by the parochial authorities at the request of the father or of the guardian, and are then only to be used for such work as is not injurious to health, and does not hinder corporal development.

"This permission can only be granted in cases where working in the manufactory does not interrupt proper attendance at school, or where by instituting special schools the manufacturer has taken satisfactory steps for educating the children according to the system enforced by the school authorities."

§ 87.—*Limit of Working-time.*

"The limit of working time must not exceed ten hours daily for persons under 14 years old, and 12 hours daily for those over 14 and under 16 years of age, and must be calculated so as to admit of proper periods of rest.

"Persons under 16 years of age must not be employed for night work, *i.e.*, after 9 p.m. and before 5 a.m. But for factories which are carried on day and night, or would otherwise suffer injury, the authorities may permit the night employment of persons under 16 years of age but not of those under 14 years of age on the condition that a proper alternation between night and day labour be observed.

In the same manner the authorities may in certain urgent cases prolong the duration of working time by two hours for workpeople under 16 years old, but only for a consecutive period not exceeding four weeks."

The term "large factories" used in § 86, and to which alone the law applies, is defined by § 82 as "factories in "which more than 20 persons, without distinction of sex "or age, are usually employed, working together in the "same establishment."

By §§ 131 and 133 infractions of this law are punishable by fines at not less than ten or more than 400 florins.

By § 141 the inferior local tribunals have cognizance of the offence in the first instance, with appeal (§ 142) to the court immediately above ("of second instance,") and by § 151 the fines when levied are paid to the treasurer of the friendly or benefit society to which the person convicted may belong; but if he does not belong to any such society, to the fund for the relief of the poor of the place where the offence was committed.

* Gewerbe-Ordnung, erlassen mit dem Kaiserl. Patente vom 20 Dezember 1859, für den ganzen Umfang des Reichs, mit ausnahme des Venetianischen Verwaltungsgebietes und der Militärgränze, wirksam vom 1 Mai 1860, angefangen. Wien, 1859.

NORWAY.

Translated from the Norwegian.

LAW concerning the organization of schools for the rural population. Palace of Stockholm, 16th May 1860.*

We, Charles, by the grace of God King of Norway and Sweden, the Goths and Vandals, make known: That to us has been submitted a resolution, passed on the 21st of March in the present year by the ordinary Diet now assembled, the contents of which are as follows:—

First Chapter.

Objects and Subdivisions of Rural Schools.

§ 1.—It shall be the object of rural schools to support home education in imparting to the children true Christian instruction, and put them in the way of such knowledge and faculties as every member of the community ought to possess, also to carry them on in general education as far as circumstances may permit.

§ 2.—The rural school has two subdivisions, the lower and the higher rural school.

a. The lower rural school is a district school in which the children belonging to a single district receive not only the teaching enjoined by law but likewise voluntary teaching.

b. The higher rural school is a school in common for several school districts, for a whole school commune or for several school communes, in which the children of the school districts belonging to the same may obtain a more extensive education.

Second Chapter.

Organization of the Lower Rural School.

§ 3.—Every school commune shall be divided into school districts, each having an extent determined by the School Commissioners, care being taken that every dwelling place is sorted under the school to which access is most easy.

If dwellings are situated so close together that a number of at least 30 children of school age can leave home daily for the same school, then the latter shall be kept in a separate house proper for the purpose, built or rented. If in any one district the number of children bound to frequent school should become so large that they cannot conveniently be instructed by one teacher at the same time, then either the children shall be divided into classes, using the school at different times, or else assistant teachers (men or women) shall be appointed.

Where the dwellings in the district lie more scattered, or the chapter of the diocess, on the representation of the School Commissioners, find that other considerations make it unadvisable to keep school in a stated place, then the school may be made ambulatory; nevertheless a proper accommodation must alway be provided for it.

The regulation of the school districts must be submitted to the chapter of the diocese for its decision, in cases where it is demanded by the overseers or by the authorities of the commune (foremen and representatives). If the authorities of the commune find that the regulation which has been established entails too great expense on the commune the question can be referred to the King's decision.

§ 4.—The School Commissioners shall decide, subject to approval of the diocesan chapter, what shall be done in reference to school-keeping and admission to school for single solitary dwellings, which cannot be included in the general regulation of the school districts.

§ 5.—The subjects of instruction in district schools shall be:—

a. Reading.

b. Knowledge of the Christian religion.

c. Selections from the educational course, principally such as have reference to geography, natural history, and history.

* By § 90 this law came into operation on the 1st January 1861.

d. Singing.
e. Writing.
f. Arithmetic.

When the School Commissioners find that circumstances will permit, the boys are to have primary instruction in gymnastics and military drill. The school begins and closes every day with prayer and hymn singing, or one of the two.

§ 6.—There shall be afforded, in the district school, 12 weeks, or where the children are divided, according to knowledge and general advancement, into classes frequenting the school separately, nine weeks' instruction for each class in the course of the year. Where special circumstances may require it, the chapter of the diocess can permit a further limitation of the above terms of instruction. Every week shall consist of six school days, and each school day on an average of six hours, but so arranged that the Saturday afternoon is left free.

§ 7.—The time for instruction appointed in a district school by the School Commissioners, with consent of the communal authorities, beyond the time stipulated in the foregoing paragraph, shall be employed according to the more particular regulations by the School Commissioners to afford such children of the district whose parents or guardians wish it a continued instruction in the branches of knowledge pertaining to the district school, to which may be added, according to circumstances, one or more of the subjects appointed for the higher rural school.

Care shall be taken that the time during which the children of the district are compelled to frequent the school shall be chosen from the most convenient season of the year for going to school.

§ 8.—The teachers of the district schools shall be appointed either to impart the entire instruction (compulsory as well as voluntary) in one or more school districts, or separately, for the course prescribed by law, and for voluntary use of the school.

§ 9.—If children having reached their 14th year are found to be so backward that they cannot profitably join the common school, it shall be incumbent on the school commune to provide special instruction until the parish minister, in consultation with the teacher to whose school such a child belongs, shall judge the same fit to be admitted to the common school. The expenses incurred hereby may be recovered for the school fund from the child's parents.

§ 10.—Every manufacturing or other industrial establishment employing generally 30 or more labourers, likewise every collection of smaller establishments of the kind, which appears to the chapter of the diocess to be situate so close to each other that they can conveniently have a school between them, and which together employ the above-mentioned number of labourers, shall keep a school of its own for the children of such labourers, which, besides satisfying the demands imposed on the district school by §§ 5 and 6, shall at the least during 16 weeks of the year afford instruction corresponding to that which in § 7 is treated of as the voluntary instruction at the district school.

The same obligation applies to industrial establishments at which schools have already been organized, and where the number of operatives is not less than 20. When children of such parents as do not belong to the works can profitably frequent its school they shall have the right to do so, provided no obstacle to the instruction arises thereby.

The stipulations contained in this paragraph shall not prevent the proprietor of any works from joining the communal authorities, with consent of the chapter of the diocess, in assimilating (absorbing) the school arrangements of such works, wholly or in part into the general school system of the commune.

§ 11.—The School Commissioners may, when they consider proper and with consent of the communal authorities, establish infant schools, the particular organization of which shall be decided upon by the School Commissioners. These schools may be placed under the charge of female teachers.

§ 12.—With consent of the communal authorities the School Commissioners may establish handicraft schools for girls and working schools in general.

§ 13. If in any school commune there should exist a district school into which the more extended instruction referred to in § 7 has not been introduced, then, as far as circumstances will permit, such children of that school whose parents or guardians desire it, shall have the opportunity of participating in that instruction in another district where it is imparted.

§ 14. Unless otherwise decided by the school Commissioners the respective parents and guardians have to provide the children with requisite school books and materials for writing and arithmetic. In other respects the schools are provided out of the school funds with necessary fittings and means of instruction. Should there arise a difference of opinion as to what these ought to consist of, the matter must be settled by the chapter of the diocess.

Third Chapter.

Of Receipts and Expenditure of the Lower Rural Schools.

* * * *

With consent of the communal authorities, the School Commissioners may determine to impose payment for such school children as receive voluntary instruction when their parents or guardians are able to afford it.

* * * *

§ 17.—All expenses contingent on the formation and keeping up of schools belonging to factories and other industrial establishments, as stipulated in § 10, shall be borne by the owners of the works, and, where there are several, the expenses of their joint school shall be apportioned among them according to the number of workmen employed by each. On the other hand, these factories or works shall be exempt from rating in support of the school system of the neighbourhood.

When, in accordance with § 10, other children than those belonging to the works are sent to its school, the owner shall be entitled to compensation from the school fund, the amount of which is to be determined by mutual agreement between the owner and the communal authorities, or in case of disagreement by verdict of the diocesan chapter.

When the owner of a factory or other works or establishments has not organized any separate school, by reason of the limited number of his workmen, then he shall pay a yearly contribution to the school fund, the amount of which is to be determined by the communal authorities, but if appealed against on the part of the owner, by verdict of the diocesan chapter.

When a factory school has been inactive as such for the space of one year it shall be absorbed, with all its means, into the general school system of the neighbourhood; but when mining works are closed, their duties towards the school system remain in force for five years afterwards.

* * * *

Sixth Chapter.

Of compulsory Scholars and Examinations.

§ 49. Schooling shall be compulsory on children upon their having completed eight years of age, and until they have been dismissed from the school.

This compulsory schooling shall for each year be limited to the school-term stipulated according to § 6.

As a rule, dismissal from school takes place at the time of the child's confirmation, but it may be done earlier if the parents or guardians of the child require it, if the child has completed 13 years of age and the School Commissioners find that the child has attained requisite knowledge and development.

If a child is dismissed from school before the commencement of its preparation for confirmation, the parents and guardians shall be bound to take care that the child's religious knowledge is kept up. Failing this the minister may send the child again to school.

Under special circumstances the School Commissioners, or provisionally the parish minister, may curtail the schooling for any particular child, or exempt such child from learning any particular subject. The School Commissioners shall have power likewise, when they find that local or other circumstances permit, to decide on children having only completed their seventh year being admitted to school.

§ 50. Parents or guardians who either themselves or through others instruct the children educated by them in the subjects prescribed for district schools, may, by representing the case betimes to the School Commissioners, be exempted from sending such children to the rural schools, but they shall nevertheless bear their part of the expenses and burdens required for the general school service. Should the School Commissioners find that any such child is neglected, the child shall be remitted by them to the common school.

§ 51. No school child may be absent from school unless in case of illness or other sufficient reason, or unless the teacher has given permission for any special occasion.

If parents, masters, or others who stand in parents' stead are unable to give satisfactory reasons for a child's absence from school, and if admonition and warning have been administered without effect, the School Commissioners may impose fines on them of from 24 skilling to 5 specie dollars.

Owners of factories and other work-masters who employ the labour of children, shall not, under pain of the same responsibility, so occupy the children that they are prevented thereby from receiving necessary instruction.

If parents and others who have charge of the bringing up of children are so careless, disorderly, or vicious that the children become neglected or contaminated by them, the

Poor Law Commissioners shall, on application from the School Commissioners, take measures for placing the children with families which will undertake conscientiously to attend to their education and keep them at school. The expenses incurred hereby may be demanded back from the parties concerned.

If a neglected child (compare § 9) has reached the age of 16 years and obstinately refuses to submit to the arrangements made by the School Commissioners for its instruction, the said Commissioners shall have the power of employing such compulsory means as may be approved by the chapter of the diocess; nevertheless such child may not be committed to any penitentiary.

§ 52. Where it is found that indigence prevents parents, or those who stand in the stead of parents, from sending the children they have to bring up to school, the children shall be put in condition to frequent school at the expense of the poor relief fund of the district.

§ 53. Every schoolmaster shall be bound to keep an account of school-keeping and school attendance made up according to the form prescribed by the chapter of the diocess and authorized by the minister of the parish.

§ 54. If a school child removes for a longer or shorter period from one district into another, the schoolmaster in the former shall report the removal to the schoolmaster in the latter district. If the child removes into another parish, the chairman of the School Commissioners has to give information thereof to the minister of such parish.

§ 55. The School Commissioners shall decide as to what time or times of the year are to be appointed for admission of new children into the school.

§ 56. Every year, as near as possible towards the close of the course of instruction, a public examination shall be held in the district schools, in presence of the parish minister and one or more of the other School Commissioners. All children above nine years belonging to the school, as well as those who receive private tuition corresponding to that of the rural school, are bound to appear at these examinations. Children above 12 years are in like manner bound to be present, if it is required at the visitation of bishop or dean. Where there is a resident chaplain, and the parish minister is prevented, the former shall be present instead at the public examinations.*

§ 57. On occasions of church visitations and catechizings by bishop or dean, all children shall be bound, if above 12 years, and thence until two years after their confirmation, to appear and be examined when summoned.

§ 58. In case of non-appearance, either at examination or visitation without valid excuse, the absentee's parents, master, or others standing in parents' stead, may be fined by the School Commissioners to an amount of not exceeding one specie dollar.

§ 59. If any child repeatedly neglects the voluntary instruction without valid excuse, such child may be refused admission to this instruction by the School Commissioners.

* * * * * *

§ 73. Where the School Commissioners find such a measure advisable, they may appoint one or more of the inhabitants of a school district to be overseers, whose principal duty shall be to see that all school-bound children within the district regularly frequent the school, and likewise to assist the School Commissioners in the way indicated by them in all matters connected with the interests of the school.

The overseers should be present at the assemblies of the School Commissioners when requested. Their term of service shall be two years, upon the expiration of which they shall be allowed to hold themselves excused for an equally long period.

* * * * * *

SAXONY.

Translation of paragraphs 62 and 63 of the Trade Laws of 15th October 1861.

§ 62. Children under 10 years of age (from 1st January 1865, under 12 years of age) may not be employed out of the house of their parents or guardians in workshops in which the proprietors according to paragraph 76 are bound to have exposed a table of byelaws.

The proprietors described in paragraph 76 are, "those who employ more than 20 workpeople of either sex in workshops."

Public institutions for the employment of children are exempted from this prohibition.

Children from 10 to 14 years of age can only be employed between five in the morning and 8 in the evening, and for a period not longer than 10 hours per diem. In the work hours are to be included an interval of one hour for dinner, and other suitable periods of repose.

The Minister of the Interior can in particular branches of trade, for which these regulations are not applicable, alter or suspend them by ordinances.

The magistrates can in cases of urgent necessity suspend them for a short time.

Contraventions of these rules will be punished by fines of from 5 groschen to 5 thalers.

Persons who render themselves guilty of the crimes specified in Arts. 180, 352, &c. &c. of the code towards the children they employ, can be forbidden to employ children in future in their workshops by a decision of a magistrate.

§ 63. Children who are liable to school must be given time by their employers to enjoy the necessary instruction in the public educational establishments of their place of domicile in accordance with the regulations of the law regarding elemental schools of 1835, or they must establish for them special manufacturing schools according to the 9th paragraph of the above-mentioned law.

The instruction in the schools must take place between five in the morning and eight in the evening.

The non-observance of two requisitions from a magistrate to obey these regulations will involve the prohibition to employ children liable to school in future.

Translation of paragraphs 48 and 49 of Proclamation of the Regulations concerning Registers to be kept of Persons employed in trade.

§ 48. Each trade master who, inclusive of women and children, employs in his business more than 20 persons, is required to keep a register of the children among them who are school-liable, in which their names, sex, age, and date of entry are to be written down. This register must be produced when required by a magistrate.

Masters who on the publication of the Trade laws were not in possession of such a register, must prepare one at latest before 31st January 1863.

Omission to fulfil this duty, or errors in the register, will be punished by a fine of 5 thalers.

Magistrates, when a person carrying on a trade is found guilty of any offence with regard to his register, inform the police charged with the supervision of trades of the fact.

Care must be taken that the school hours for children are neither too early or too late, especially in winter. The law only defines the extreme limits.

BELGIUM.

Copy Extract from a Despatch from Lord Howard de Walden, Her Majesty's Minister at the Court of Brussels, to A. H. Layard, Esq., M.P. Under Secretary of State for Foreign Affairs.

Sir, Brussels, May 12, 1862.

On receipt of your despatch of the 9th instant, transmitting to me a copy of a letter from the Children's Employment Commissioners, applying for copies of any laws or ordinances that may be in force in Belgium for the regulation of any trades or manufactures in which children or young persons are employed, I asked Mr. Rogier to give me the information required.

Mr. Rogier stated to me that neither general law nor local regulations imposed any restriction on the hours of labour of children; that for the last three years the Government has had under consideration each session the opportuneness of presenting to the Chamber a law upon the subject, but that they had encountered obstacles in the jealousy manifested in many quarters of any legislation at variance with the principle of perfect liberty of labour. His Excellency added, however, that the Government had not given up the hope of being able to effect some salutary legal control over the employment of children in manufactories.

I have, &c.,

(Signed) H. de Walden and Seaford

A. H. Layard, Esq.

SWITZERLAND.

According to the information furnished by the Federal Government on the subject of the factory laws of Switzerland, it appears that no positive legislation on this subject

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* By § 37 it appears that the standard of instruction at which it is expected that a child of 12 years of age shall have attained at the lower rural school, and without which he cannot be admitted, if he desires it, into the higher rural school, is as follows:—

§ 37. For admission into a higher rural school it shall be required that the child is able to give account of the more important episodes in the selections from the Old and New Testaments and of Luther's catechism; that he can read with ease, write a connected hand, and knows the four elementary divisions in arithmetic.

No child under 12 years of age can be admitted unless by exceptional permission of the School Commissioners.

When an advanced development of the district school permits it, the above measure of previous knowledge may, with the consent of the diocesan chapter, be increased. * * * * *

exists except in the cantons of *Zurich, Glarus, St. Gall, Argovie,* and *Thurgovie.*

With regard to these cantons it is unnecessary to state more in elucidation of these factory laws than to refer, for a full account and translation of the regulations now sent to the Home Office, to *Mr. Burnley's Report on the Swiss Factory Legislation* (page 166 of vol. 5 of Secretary's Reports for 1862).

The Argovian factory law. At the time the above Report was written (December 1861), the present law, bearing date May 1862, was hardly elaborated, but little therefore could be said about it. It may be well then to state briefly the provisions of this law.

§ 2.—No children under 13 can be employed, and where the occupation acts injuriously upon their bodily health, the Government is empowered to fix a higher age for admission up to 16.

§ 3.—Children under 16 are not to be worked more than 12 hours, and in this is included the attendance necessary for school and confirmation instruction.

On Saturdays work to cease an hour earlier.

§ 6.—It is positively forbidden to work children before 5·30 a.m., or after 8·30 p.m.

§ § 8, 9, 10.—Every workman to have a livret or book, in which his name and residence of his father or guardian is inscribed, and every millowner to keep an account of all the workmen he employs, and show it to the authorities if necessary.

§ § 12, 13.—Fines up to two francs for disorderly conduct can be imposed, which go towards the aged or sick relief fund, as well as for rewarding deserving operatives.

All establishments where more than 10 persons are employed, exclusive of the family, in one room, are considered as factories, and all such factories are to be regularly inspected.

Lower Unterwalden sends a law regulating its lucifer match manufactory, and making a general provision for proper ventilation, and manipulation of the materials. No persons under 18 are to be employed, and no workman who has had a *tooth extracted* is allowed to be employed for a fortnight after the operation. All boys or girls afflicted with scrophulous diseases or carious teeth are to be forbidden the laboratory.

Every three months at the expense of the owner, a physician is to investigate the health of the workmen.

In some cantons, *Grisons, Berne, Schaffhausen, Schwyz, Bâle Campagne,* and *Bâle Ville,* by the school laws it is provided that no child is to be employed until he has quitted the school, in the Grisons for instance, at the age of 14, and in Schwyz, and Bâle Campagne, and Bâle Ville, at the age of 12.

Le $\frac{27}{31}$ Mars 1863

Par la note que S. E. M. l'Envoyé extraordinaire et ministre plenipotentiare de S. M. B. à fait l'honneur d'adresser le 3 Fevrier dernier au Conseil Fédéral, il lui a demandé communication des lois en vigueur dans les cantons Suisses, pour la protection des enfants et des jeunes personnes qui travaillent dans les fabriques.

Aussitôt après la reception de cette note le Conseil Fédéral, s'est empressé d'adresser aux gouvernements cantonaux une circulaire pour en obtenir les documents et renseignements désirés, et aujourd'hui il est en mesure de faire à S. E. à ce sujét, la communication suivante.

Il n'existe de dispositions législatives sur cette matière que dans les cantons de *Zurich, Glaris, St. Gall, Argovie,* et *Thurgovie,* et le Conseil Fédéral a l'honneur de transmettre ci-joint ces lois à M le ministre de la Grande Bretagne, tout en faisant observer que l'on s'occupe actuellement dans le canton de Glaris de la révision de la loi qui y est en vigueur.

Le canton d'Unterwalden-le-Bas a envoyé, comme étant liée à cette question, une ordonnance concernant la fabrication d'allumettes phosphoriques qui y existe.

En outre, quelques rapports des cantons font mention de la prescription qui existe dans la législation scolaire portant qu'aucun enfant ne peut être employé dans les fabriques avant l'expiration de la durée légale pendant laquelle les enfants doivent fréquenter les écoles. C'est ce qui est dit par exemple dans les rapports des *Grisons,* ou les parents ont l'obligation d'envoyer leurs enfants à l'ecole jusqu à l'age de 14 ans révolus, de Schwyz, Bâle-Campagne et Bâle-Ville où elle dure jusqu â l'age de 12 ans. De pareilles dispositions existent sans doute aussi dans plusieurs autres cantons quoique les rapports n'en fassent pas spécialement mention.

Ce que la loi positive n'a pas encore atteint a été complété dans quelques cantons par le bon sens, ou si l'on veut, par les moeurs et l'usage. Sous ce rapport, le gouvernement d'Appenzell R. E. fait observer qu'il y est généralement admis que des enfants ne doivent pas etre employés *trop tot* au service des fabriques, et que le temps du travail pour enfants et adultes est convenablement limité; en outre, l'education religieuse et la continuation de leur instruction scolaire a aussi lieu pour les enfants employés dans les fabriques, tout comme l'attention est aussi dirigée sur la conservation de la santé des ouvriers et le maintien de l'ordre et des bonnes moeurs. Ce sont principalement les propriétaires des fabriques qui pourvoient à tout cela de leurs propres chefs, et traditionnellement, et le contrôle public n'a été que très-rarement obligé de s'immiscer par des motifs d'humanité dans la conduite intérieure des fabriques.

Enfin, dans le rapport du gouvernement de Bâle-Ville il est encore mentionné qu'il y existe divers établisssements de nature et d'utilité publique qui s'occupent du perfectionnement intellectuel et des soins physiques à donner, notamment aux jeunes gens qui travaillent dans les fabriques, et que ces soins sont particulierèment destinés aux enfants étrangers qui y travaillent. Au nombre de ces établissements se trouvent avant tout les écoles générales de fabrique ou se donne la pension, et un etablissement particulier dans lequel M. M. Richter et Linder reunissent l'education et le travail de fabrique pour environ 400 filles.

Dans l'espoir que ces renseignements pourront être de quelque utilité à la commission chargée d'étudier cette matière à Londres, le Conseil Fédéral a l'honneur, etc.

Au nom du Conseil Fédéral
Le President,
(Signed) J. Formerod,
Le Chancelier.
(Signed) Schiess,
Berne.

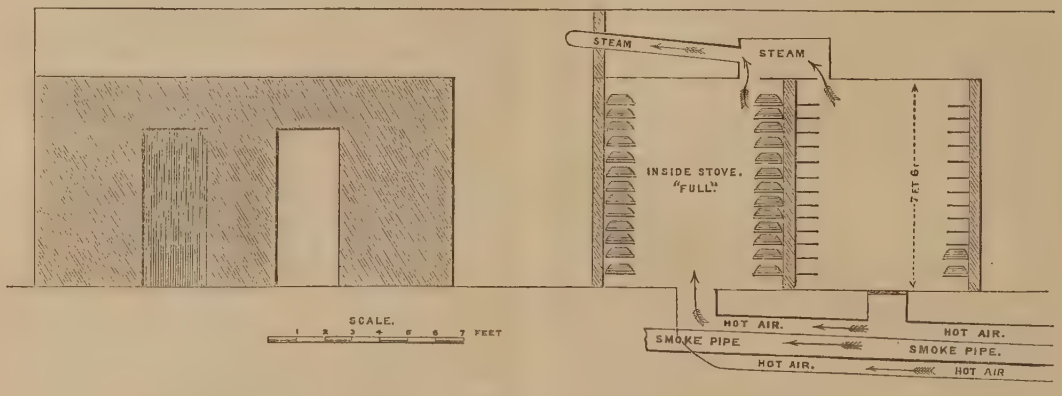
A S. E. M. le Contre-Amiral Harris.
&c. &c.

Potter's Drying Stove, fixed at Messrs. Pinder, Bourne, and Co.'s, Burslem, April 1863, by W. Boulton, Moorland Road Foundry, Burslem.

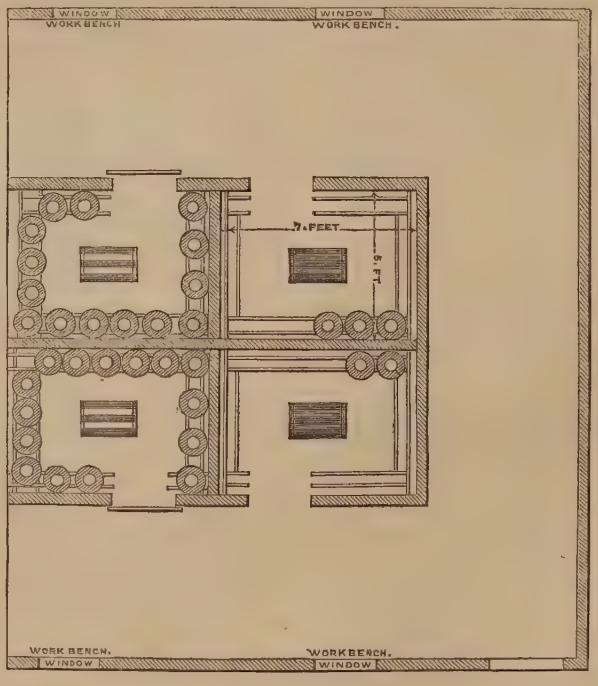
(*Referred to at* page xviii.)

Plan No. I.

Front View. End View.



Plan No. II.



Scale, $\frac{1}{2}$ inch to the foot.

The heat is generated in a hot-air stove outside the building, and conveyed up hot-air drains to the valves in the floor in a simpler form and not so expensive as my original plan which gained Mr. Jones' prize.

The pipe at the top is to convey the steam from the moulds away up the chimney, so that they will dry quicker with less heat.

Two compartments are represented, in the ground plan, to be full ; the doors of same shut, and hot-air valves in the floors open, drying the moulds. The other two compartments are being fitted with doors open and valves shut, to keep the heat from the boy who carries the moulds into the stove. This is done alternately in each compartment, one part drying while the other is being filled.

Instructions from the Children's Employment Commissioners (1862) to the Assistant Commissioners.

2, Victoria Street, Westminster, S.W.

Gentlemen, 10th April 1862.

In 1840–41 a very full inquiry was instituted into the employment of children and young persons by the "Children's Employment Commissioners," to whose report, presented to Parliament in 1843, we beg to direct your attention,

The object of the present Commission is to inquire into the employment of children and young persons in trades and manufactures not already regulated by law.

The term "children" signifies those who are under 13 years of age; and the term "young persons," those who are above 13 and under 18 years of age.

During the period that has elapsed since the former Commission, some of the trades and occupations then inquired into have been placed under legislative enactments.

One of the principal objects of your investigations will be to ascertain whether the condition, physical and moral, of the children and young persons in the branches then inquired into, but not yet brought under legislative restrictions, remains as it was at the period of the above inquiry; and if not, in what respects it has either improved or deteriorated.

To determine these points satisfactorily, personal inquiries should be made in such a number of instances as will illustrate each particular occupation, without unnecessarily extending the inquiry.

Within the same period some new trades have come into existence. In these a full investigation will be necessary; and in all cases where the nature of the employment is more particularly obnoxious to health, careful evidence, and especially that of medical practitioners, should be obtained.

The great principle of submitting the labour of children and young persons to legislative restriction, where the circumstances of the case justify and require it, has been shown, by extensive experience, to be perfectly compatible with the successful prosecution of the largest industrial occupations of the kingdom, whilst it has greatly ameliorated the condition of the employed and promoted the general contentment of the people. We anticipate, therefore, that you will meet with no difficulty in ascertaining the opinions of those most interested, as to what would be the effect of the application of the regulations, either of the Factories Acts, or of the other Acts regulating juvenile labour, to the case of children and young persons whose labour is at present unrestricted, and in respect to whom legislative protection may be proved to be desirable. To this point your especial care and attention will be directed.

You will also examine how far the unlimited power to employ children at any age and for any number of hours, possessed both by parents and masters in all trades and manufactures which are exempt from legislative restrictions, operates injuriously on those branches of manufacturing industry which are now subject to legislative restriction; and you will show, as far as practicable, the nature and extent of the evils which result from this partial legislation both to the employers and to the employed.

It is not necessary that we should dwell upon a fact which will constantly present itself to your notice, namely, the inseparable connexion existing between early and unrestricted labour and education. Since the inquiry of 1840–41, the educational system of the country has been so greatly developed as to obviate, to a considerable degree, the necessity of the searching and extensive investigation which was, at that period, required; but it is desirable that, in the course of the present inquiry, so important a subject should receive your careful consideration.

The evils resulting from the early withdrawal of children from school being well known, any cases where successful efforts have been made by the employers of labour to lessen or obviate such evils should be fully described.

In the discharge of the important duties you have undertaken, we entertain the most sanguine expectation, resting on past experience, that you will receive hearty co-operation from the great body of employers, and from all who are interested in the improvement of the industrial part of the population. With this impression, we cannot better conclude these general instructions than by quoting, for your guidance, certain passages from the heads of inquiry, and the instructions issued by our predecessors the Commissioners appointed by Her Majesty to conduct the inquiry of 1840–41.

These will indicate more precisely the details on which it will be your duty to obtain full information, and in investigating which it will be in the power of employers to give you great facilities and assistance.

1.—*Number and Ages of Children and Number of Young Persons.*

You will ascertain the number and ages of the children, and the number of young persons, employed in each of the establishments which you may visit. These particulars are to be entered upon the tabular form, of which a copy is annexed.

It is of importance that you should see the children and young persons at their work, to enable you to observe its nature, and to form your opinion as to its probable effects upon their health.

2.—*Hours of Work.*

You will ascertain the regular hours during which the children and young persons work, namely, at what hour they commence in the morning and at what hour they leave off at night; whether these hours vary at different seasons; and whether the regular hours of work are, from the nature of the trade or manufacture, beyond their strength, or otherwise injurious to them.

You will also report—

Whether they work over-time; if so, the greatest number of hours of overtime, and the frequency of such work.

Whether any and what proportion of their work is night-work; that is, between six o'clock at night and six o'clock in the morning.

Whether there are any and what circumstances of *occasional* occurrence in relation to their work which render their labour more oppressive at one time than at another; the nature and extent of the pressure at those periods; and whether such pressure is to any and what degree absolutely unavoidable, or how far it might be prevented or diminished by greater care and forethought on the part of those by whom they are employed.

3.—*Meals.*

You will ascertain the time allowed to the children and young persons for meals; whether it is uniformly the same in summer and winter; whether the children, or any of them, and what proportion, leave the place of work and go to their own houses to take their meals; and whether there is any accommodation in the building for the work-people to wash, change their clothes, &c. on going to their meals.

You will inquire also whether the work and machinery are stopped during each meal; whether any persons are employed at meal-times to clean machinery, and, if so, whether children or young persons are so employed; whether this is an essential arrangement, and why; and whether, if the persons engaged in this office be children or young persons, time is allowed them from their work to make up the regular meal-times taken by the adults.

4.—*Nature of Employment.*

You will, in each case, give a particular description of the different kinds of work in which the children and young persons are employed.

You will carefully inquire whether any branch of manufaacture carried on in the establishment is unfavourable to health, and why; and if any children or young persons are employed in it, at what ages, and for what number of hours daily; and what is the effect upon their physical condition.

5.—*State of the Place of Work.*

You will examine whether the state of the place of work is healthy or unhealthy; whether the air which they usually breathe while at their work is rendered offensive by the absence of proper means of ventilation, or by the situation or neglected state of drains, privies, &c.

6.—*Accidents.*

You will endeavour to ascertain the number of accidents that have happened in the place in which the work is carried on each year during the last three years, and what proportion they bear to the number of persons employed; the nature of each accident and the probable cause; whether any, and what proportion, was owing to the crowded state of the machinery, to inadequate boxing or fencing off its dangerous parts, or to other neglect of precautions for safety.

You will also specially inquire whether children and young persons are ever employed in cleaning the machinery while it is in motion.

7.—*Hiring and Wages.*

You will inquire whether the children are hired by the master or by the adult whom they assist; whether the terms upon which they are hired are determined by the master or

by the adult whom they assist; whether the children make their own contracts, or whether they are made by the parents; whether the contracts made either by the children or the parents are in any mode disadvantageous to the children.

The preceding heads of inquiry indicate the kind of information which is sought, but are not intended as a complete enumeration of all the subjects which require investigation. New points of inquiry, interesting and important, will probably arise as the investigation proceeds.

On arriving in any town or district you will, as a general rule, seek an interview with the chief magistrate, the parochial clergy and other ministers of religion, the town-clerk, the medical officer of health, the relieving officers, and other public functionaries or private individuals whose duties bring them into constant intercourse with the working classes.

You will inquire of the magistrates whether any and what complaints have been made before them, arising out of the hours of labour, or the treatment of the children or young persons employed in the various branches of trade and manufacture not under legislative restrictions within their districts. You will endeavour to see any minutes of evidence that may have been taken on those occasions, and to procure copies of any portion of them which may appear to you to be of importance.

In order to guard against the risk of losing any evidence which might promote the objects of this Commission, you will take care to make your arrival in any place generally known, so as to give to all persons who are desirous of affording information ample opportunity of communicating with you, either verbally or by writing.

You will submit to the employers the statements you receive from, or the evidence you obtain, regarding the children or young persons in their employ, to afford opportunities of explanation or correction.

If testimony which you deem important be positively refused, or if any obstructions be wilfully placed in the way of an important course of inquiry, you will immediately transmit to the Commissioners an account of the circumstances of the case, in order that steps may be taken to meet the exigency.

You will transmit to the Commissioners the evidence you take at every place or district, previously to your quitting it. You will also be required to report to the Commissioners, when it may be deemed necessary, your opinion of the circumstances which have come under your observation, with reference to the legislation most applicable to the particular case.

Throughout the whole of this inquiry you cannot too constantly bear in mind, nor will you lose any opportunity of impressing upon the minds of others where necessary,—

That childhood is essentially the period of activity of the nutritive processes necessary to the growth and maturity of the body; that if at this period the kind and quantity of food necessary to afford the material for these processes be not supplied, if, instead of the pure air which is indispensable to convert the aliment into nutriment, the air which is constantly respired be loaded with noxious matters, if the comparatively tender and feeble frame be taxed by toil beyond its strength, and at unseasonable and unnatural periods, and if the day be consumed in labour, and no time during the 24 hours be allowed for healthful recreation, the organs will not be developed, their functions will be enfeebled and disordered, and the whole system will sustain an injury which cannot be repaired at any subsequent stage of human life; and above all, that childhood is no less essentially the period of the development of the mental faculties, on the culture and direction of which at this tender age the intellectual, moral, and religious qualities and habits of the future being almost wholly depend.

The number of children and young persons whose welfare is involved in this inquiry is considerable. Their religious, moral, and physical culture and improvement will contribute to the well-being of the whole community. We do not doubt, therefore, that you will enter upon your duties with a full sense of their interest and importance.

We are, &c.

Hugh Seymour Tremenheere.
Richard Dugard Grainger.
Edward Carleton Tufnell.

Sir, 1862.

In accordance with the instructions of the Commissioners appointed by Her Majesty "to inquire into the "employment of Children and Young Persons in Trades "and Manufactures not already regulated by Law," I beg leave to invite your attention to the enclosed papers.

I shall feel obliged by any aid that you may be good enough to afford me towards the objects of the Commission.

I beg to acquaint you that I purpose calling at your works on , and I shall be glad to find that you have been able to direct your attention to the subject with a view to facilitate the inquiry. I have, &c.

, Esq.

Assistant Commissioner.

P.S. Time would be saved if you would kindly cause the information sought for to be entered upon the tabular forms enclosed, previously to my visit.

CIRCULAR to Employers.

Sir,

On the 18th of February 1861 the House of Lords agreed unanimously to the following resolution:—

"That an humble Address be presented to Her Majesty, "praying that she will be graciously pleased to direct an "Inquiry to be made into the employment of Children "and Young Persons in Trades and Manufactures not "already regulated by Law."

Her Majesty having been pleased to comply with the prayer of that address, the Commissioners appointed to conduct this inquiry take leave to solicit your co-operation.

They have instructed one of the Assistant Commissioners appointed by the Secretary of State to place himself in communication with you, and to put you in possession of the nature and objects of the inquiry.

The Commissioners feel confident that you participate in the conviction, which has happily now become general, that all persons have a direct interest in the success of every measure, the tendency of which is to rear up an industrious, intelligent, and moral population. But no sound and practical conclusions as to the means of improving the condition of the children and young persons can be arrived at until the circumstances in which they are actually placed, and the influence of those circumstances upon their physical and moral welfare, are known. The Commissioners therefore trust that you will contribute any aid that may be in your power towards rendering the information sought for as correct, full, and complete as practicable.

I have, &c.

Prideaux Selby, Secretary.

Children's Employment Commission (1862),
2, Victoria Street, S.W., April 1862.

CIRCULAR to Magistrates, Clergymen, and Others.

Sir,

On the 18th of February 1861 the House of Lords agreed unanimously to the following resolution:—

"That an humble Address be presented to Her Majesty, "praying that she will be graciously pleased to direct an "Inquiry to be made into the Employment of Children and "Young Persons in Trades and Manufactures not already "regulated by Law."

Her Majesty having been pleased to comply with the prayer of this address, the Commissioners appointed to conduct this inquiry take leave to solicit your co-operation. They have instructed one of the Assistant Commissioners appointed by the Secretary of State to address himself to you, in order to put you in possession of the nature and objects of the inquiry.

One of the first objects to which the Assistant Commissioners will find it necessary to direct their attention, is the discovery of the places in which persons under 18 years of age are employed, in order that they may proceed to such places to collect evidence. Any information, therefore, which it may be in your power to afford, as to the existence of such works in your vicinity, the names and addresses of the firms under which the works are carried on, and the sources from which information may be derived relative to the children and young persons employed in them, will be thankfully received by the Commission.

The Commissioners feel confident that you participate in the conviction, which has happily now become general, that all persons have a direct interest in the success of every measure, the tendency of which is to rear up an industrious, intelligent, and moral population. But no sound and practical conclusions as to the means of improving the condition of the children and young persons can be arrived at until the circumstances in which they are actually placed, and the influence of those circumstances upon their physical and moral welfare, are known. The Commissioners therefore trust that you will contribute any aid that may be in your power towards rendering the information sought for as correct, full, and complete as may be practicable.

I have. &c.

Prideaux Selby, Secretary.

Children's Employment Commission (1862),
2, Victoria Street, Westminster, S.W.,
April 1862.

CHILDREN'S EMPLOYMENT COMMISSION (1862).

2, Victoria Street, Westminster, S.W.

TABULAR FORMS to be filled up by EMPLOYERS of CHILDREN and YOUNG PERSONS.

Note.—*The term "Children" signifies those who are under* 13 *years of age, and the term "Young Persons" those who are above* 13 *and under* 18 *years of age.*

Name of the Person or Firm carrying on Works - - _____

Description of Work carried on - - - - - _____

Town, Street, or other Locality in which situated - _____

Parish of_____, or Township of_____, County of_____.

NUMBER and present AGE of all CHILDREN here employed this_____day of_____1862.

Christian and Surname of Children (under 13). N.B.—Enter all the Boys first; draw a Line, and then enter all the Girls.	Present Age.	
	Years.	Months.

TOTAL NUMBER of PERSONS employed here this_____ day of_____1862.

Children under 13 Years of Age.		Young Persons (above 13 and under 18).		Adults of 18 Years of Age and upwards.	
Males.	Females.	Males.	Females.	Males.	Females.

If no machinery employed, add the word "No" at the end of this line _____.

QUERIES to be answered by EMPLOYERS.

1. What are the usual hours of work at this establishment?

2. If you work at night (*i.e.*, between 6 p.m. and 6 a.m.) are children or young persons ever employed between those hours?

3. Under ordinary circumstances, during what hours between those hours are children and young persons employed?

4. Are those hours occasionally exceeded, and to what extent?

5. During how many months in the year do you generally exceed the ordinary hours of night work for children and young persons?

6. Has any system of relays or change of hands, as regards children or young persons, been tried at your establishment, and if so, with what result?

7. If you have considered the question of the prohibition of night work, or other limitation of work, for children and young persons, in reference to its probable effect upon your trade or manufacture, have the goodness to state your opinions?

8. What are the times allowed for meals? Are these liable to be curtailed; if so, under what circumstances?

9. If you have any further observations to make in reference to the present inquiry, be good enough to state them.

ABSTRACT of RETURNS of ANSWERS to TABULAR FORMS.

No. of Form.	Name of Firm.	Address.	MALES.											FEMALES.											Total Males and Females under 18.
			Under 13.							Between 13 and 18.				Under 13.							Between 13 and 18.				
			6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and under 13.	Total under 13.	13 and under 14.	14 and under 15.	15 and under 16.	16 and under 17.	17 and under 18.	Total between 13 and 18.	6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and under 13.	Total under 13.	13 and under 14.	14 and under 15.	15 and under 16.	16 and under 17.	17 and under 18.	Total between 13 and 18.	

continued—

Adults.		Usual Hours of Work.	Hours of Meals.	Hours of Night Work.		Any system of Relays ever tried?	Opinion as to Prohibition of Night Work.	Observations as to present Inquiry.
Male.	Female.			Frequent.	Occasional.			

LONDON:
Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE.
Printers o the Queen's most Excellent Majesty
For Her Majesty's Stationery Office.

437

REPORTS

OF THE

INSPECTORS OF FACTORIES

TO

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE
FOR THE HOME DEPARTMENT,

FOR THE

HALF YEAR ENDING 31ST OCTOBER 1862.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1863.

6066.

REPORTS

TO THE RIGHT HONOURABLE SIR GEORGE GREY, BART.

Her Majesty's Principal Secretary of State for the Home Department.

				Page
Joint Report of Inspectors for the half-year ending		31st October	1862	3
Report by Alexander Redgrave, Esq.	ditto	ditto	"	6
Report by Robert Baker, Esq.	ditto	ditto	- -	51

Half-yearly Joint Report of the Inspectors of Factories.

Factory Inspectors' Office,
19th December 1862.

Sir,

We have the honour to inform you that we have read our respective reports, which follow, and having referred in them at some length to the several matters which have arisen in our Districts, we are not aware of any further subjects to be brought before you in a Joint Report.

We have the honour to be,

Sir,

Your obedient servants,

ALEX^{R} REDGRAVE.
ROBERT BAKER.

The Right Hon.
The Secretary of State
for the Home Department,
&c. &c. &c.

Appendix No. 1.

General Abstract, showing the Total Number of Accidents reported to the Inspectors of Factories during the Six Months ended the 31st Oct. 1862.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injnry.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
Causing death	3	3	2	2	3	–	8	5	13
Amputation of right hand or arm	5	4	3	1	–	–	8	5	13
Amputation of left hand or arm	1	2	3	3	–	–	4	5	9
Amputation of part of right hand	18	28	12	18	4	5	34	51	85
Amputation of part of left hand	17	14	11	18	5	4	33	36	69
Amputation of any part of leg or foot	2	–	1	1	–	–	3	1	4
Fracture of limbs and bones of trunk	20	8	12	5	7	1	39	14	53
Fracture of hand or foot	22	23	17	25	14	10	53	58	111
Injuries to head and face	11	20	20	16	4	2	35	38	73
Lacerations, contusions, and other injuries not enumerated above	175	158	164	189	60	27	399	374	773
Total	274	260	245	278	97	49	616	587	1203

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
Causing death	1	–	–	–	–	–	1	–	1
Amputation of part of right hand	–	–	1	–	–	–	1	–	1
Fracture of limbs and bones of trunk	10	5	3	4	3	1	16	10	26
Injuries to head and face	4	1	7	1	2	–	1	2	15
Lacerations, contusions, and other injuries not enumerated above	25	9	10	7	3	–	38	16	54
Total	40	15	21	12	8	1	69	28	97

Appendix No. 2.

Summary of the Total Number of Informations and Convictions, and the Amount of Penalties and Costs, in the Districts of the Two Inspectors, during the Six Months ended the 31st of October 1862.

Description of Offence.	Number of Informations.	Result.			Penalties imposed.				
		Convictions.	Withdrawn on Payment of Costs.	Dismissed.	5*s.*	20*s.*	40*s.*	50*s.*	£3.
Employing children and young persons without registering their names and date of first employment	29	13	16	—	—	4	6	2	1
Employing children and young persons without surgical certificates	68	42	26	—	—	13	27	—	2
Employing children before noon and after 1 o'clock P.M. of the same day	9	1	8	—	—	1	—	—	—
Employing children without school vouchers	6	1	5	—	—	1	—	—	—
Employing children, young persons, and women before 6 o'clock A.M.	52	—	9	43	—	—	—	—	—
Employing children, young persons, and women after 6 o'clock P.M.	106	31	75	—	—	10	21	—	—
Employing young persons, and women after 2 o'clock on Saturday	94	37	57	—	—	5	27	—	5
Employing young persons and women during meal hours	7	3	4	—	—	1	1	—	1
Parents employing or conniving at the illegal employment of their children	1	1	—	—	1	—	—	—	—
Parents neglecting to cause their children to attend school	1	1	—	—	1	—	—	—	—
Neglecting to give notice of accident to the Certifying Surgeon	1	1	—	—	—	—	1	—	—
Not keeping a register	2	—	2	—	—	—	—	—	—
Not lime washing, as required by law	2	1	1	—	—	—	—	—	1
Not hanging up abstract of acts, notices of hours of work, meal times, &c.	2	2	—	—	—	—	2	—	—
Wilful obstruction of the sub-inspector in the execution of his office	1	—	—	1	—	—	—	—	—
Total	381	134	203	44	2	35	85	2	10

The Total amount of Fines inflicted - - £ 240 10*s.* 0*d.*

The Total amount of Costs - - - £ 109 8*s.* 9*d.*

REPORT OF ALEXANDER REDGRAVE, Esquire, Inspector of Factories, for the Six Months ended the 31st October 1862.

10, *Whitehall*,
SIR, 29th November 1862.

DURING the period embraced by this Report, I have visited the various establishments under legislative regulations, at Manchester and its neighbourhood, Bury, Lancaster, Liverpool; Nottingham and its neighbourhood; Derby Draycott, Wilne, Melbourne; at Glasgow, Paisley, Rothesay, Dumfries, Kilmarnock; at Dundee, Arbroath, Montrose, Lesslie, Kirkcaldy; also in the counties of Cumberland, Northumberland, Durham; in the North Riding of York, in the counties of Essex, Suffolk, Norfolk, and Surrey, and in and about the metropolis.

I have much pleasure in expressing my thanks to the Sub-Inspectors of the district for their very pains-taking services during the half year.

The following grants, amounting in all to 215*l.*, have been made, with your sanction, since the date of my last report, to day schools which have been attended by half-timers; in many cases the half-timers had ceased to attend in consequence of the closing of the mills in the neighbourhood, and the means of the schools were seriously crippled by the loss of the school fees of the half-timers.

Fifteen pounds to each of the following schools:—

The National School at Hoddesden, near Darwen.
" " Wensleyfold, near Blackburn.
" " Over Darwen "

Ten pounds to each of the following:—

The National School, St. Mark's, Dukinfield.
" " Audenshaw, Manchester.
" " Walmersley, Bury.
" " St. Peter's, Nottingham.
" " Musbury, Haslingden.
" " Accrington.
" " Church Kirk, Accrington.
" " Clitheroe.
" " St. Paul's, Preston.
" " Christchurch, Preston.
" " St. Mary's, Preston.
" " St. Thomas, Preston.
The Roman Catholic School, St. Austen's, Preston.
" " Walker Street, Preston.

Five pounds to each of the following:—

The National School, Alverthorpe, Wakefield.
" " Stanningley, Leeds.
The Wesleyan School, Batley, Leeds.

443

The British School,	Cornholme, Todmorden.
The Private School,	Crosslanes, Hebdenbridge.
„ „	Ingham Lane, Halifax.

I have the gratification of again reporting to you that gross violations of the law are rare. There have been but two cases during the half year which appeared to indicate an extensive system of over-work. There have been several, as will be seen in the Appendix No. 1, of mill occupiers convicted of having employed children, young persons, and females after 6 p.m., and after 2 p.m. on Saturdays; but in all cases, except the two to which I have referred, the illegal employment was confined to a few persons in the mill, and to some one particular process. The exceptions are that of Messrs. J. and J. Place, of Hoddesdon, and that of Messrs. Wm. Barlow and Sons, Hawthorn Mills, Rawtenstall. In the first case no difficulty was experienced in obtaining a conviction; but in the latter case, I regret to say that the prosecution failed. Mr. Patrick was informed that work at this mill commenced before six o'clock in the morning, and continued after six o'clock in the evening, and that several minutes were subtracted from each meal time for work, and he accordingly visited the mill before six o'clock in the morning. As he approached the mill he could hear the whirr of mill-gearing and looms in motion, but by the time he reached the door of the throstle room, a quarter to six, he was met by a crowd rushing out. The mill-gearing, *i.e.*, the shafting, was revolving, but the throstle frames were not, so far as he could then see, in motion. The hands were all in their working dresses, many in their places, and he saw one boy putting bobbins in a basket, preparatory to placing them upon the frames. With much difficulty, increased by the conduct of the overlooker in preventing an examination of the hands except in his presence, Mr. Patrick obtained the names of nine persons besides that of the boy whom he saw at work. Messrs. Barlow were proceeded against on the 4th ultimo, and the case of the boy was first gone into. Mr. Patrick's evidence was, as I have related, that he saw the boy at a quarter to six placing the bobbins in the basket, the shafting being in motion. The boy also gave similar evidence: he said he was employed on the morning in question in his usual manner; he did not know the precise time at which they generally began to work in the mill, but it was said to be six o'clock. The magistrates dismissed the information, and the other nine cases were therefore withdrawn. I presume the magistrates did not feel satisfied that the boy's occupation at the moment of Mr. Patrick's entry into the room was "employment" according to the definition of the word in s. 73 of 7 Vict. c. 15, which describes it to be "work whether for wages or not, or as a

" learner, or otherwise, either in any manufacturing process, " or in any labour incident to any manufacturing process, " * * * or in any other kind of work whatsoever;" but I cannot believe that the workpeople were all collected, as I have been informed, at twenty minutes to six every morning ready for work in their factory dresses, in their proper places in the mill, waiting, *doing no kind of work whatever*, until the legal time of commencing work arrived, when, by the mere pressure of a handle, each frame could be at any moment set in motion instantly, and the manufacturing processes be put in full operation. Messrs. Barlow and Sons are now working short time, or it would have been necessary to have kept a very strict watch over their proceedings.

There has been no prosecution in Scotland. It is now nearly a year since I was charged with the inspection of factories in that country, and in my visits to the Scotch factories, I have been struck by the earnest desire for the full and complete carrying out of the Factory Regulations. In small factories, as in large establishments, I have found a systematic observance of the law to prevail. There have been, of course, faults occasionally discovered, but they have not been such as to require more than rectification at the time. I regret that I felt it my duty to make some alteration in a system which had been in operation in Scotland, but which was different from that which has prevailed for years in England; and it became necessary, therefore, for me in an impartial administration of the law to assimilate the practice in both countries. I found in Scotland that workpeople engaged in many of the operations which were unconnected with machinery had not been considered as within the scope of the Factory Act. For instance, in a factory in which steam power was employed for spinning yarn in one part, and for manufacturing cloth by hand-looms in another part, the latter was not inspected or treated as part of the factory; or in a factory in which part was used as a power-loom factory and part as a hand-loom factory, the latter part was not inspected. This construction of the law was correct under the first Factory Act, 3 & 4 W. 4. c. 103, but under the 7 Vict. c. 15. the exemption was repealed. In England immediate effect was given to the alteration in the law upon the passing of the 7 Vict. c. 15, while in Scotland the effect of the alteration was not considered so decisive as it was in England. As several instances came under my notice of mills in Scotland in which certain portions had been thus exempted from the application of the Factory Acts, I informed the mill occupiers of the real state of the law, and in other cases which were noticed by Mr. Walker and Mr. Campbell, the Sub-Inspectors in Scotland, they explained to the persons interested that the exemption

must cease; and in every instance the announcement was received with an expression of the utmost readiness to comply at once with what was explained to be necessary.*

My former colleague, the late Sir John Kincaid, who was the Inspector for Scotland, has frequently brought forward in his reports the question of the education of factory children. He has shown as the results of his enquiries in factories the lamentable ignorance of the young hands, and he has urged, as a palliative measure, the admission of children to work for full time two years younger than the age (13) as at present fixed, provided the children were able to read and write. Although I agree entirely in the principle of Sir John Kincaid's recommendations, and believe that great good would result from the adoption of an educational test as the condition of full-time employment, as I have advocated in several of my former reports, I do not wish to enlarge upon that part of the subject. It would certainly appear strange that in Scotland so much ignorance should be found, but such being the fact, the question arises, in what way this ignorance can be most easily met. It appears to me that it may in some degree have arisen from the difficulty of adopting the half-time system in Scotland. The half-time system is purely an English institution, it suits exactly the arrangement of the school hours, and factory meal times in England, but it is utterly unfitted for Scotch habits and Scotch arrangements.

The details of the half-time system are these:—

The children are divided into two sets, the morning set commencing work at 6 a.m. and continuing at work until the dinner hour, but never later than 1 o'clock, and then attending school for three hours in the afternoon; the afternoon set commencing work at the conclusion of the dinner hour, and continuing to work until 6 p.m., having attended school for three hours in the morning before coming to the mill.

The system thus hinges upon the dinner hour, dividing the day as nearly equally as possible, at which break the sets change, without interruption or stoppage of the work.

The dinner of operatives and mechanics in England is generally from 1 p.m. to 2 p.m. It is sometimes from 12 at noon to 1 p.m., or from 12.30 to 1.30 p.m., but it is always completed by 2 p.m., and the arrangement of the work of half-timers was made in accordance with English habits.

Each child being required to attend school for three hours daily, and the ordinary school hours in England being from 9 a.m. to noon, and from 1 to 4 or 2 to 5, there are two

* The case of Taylor *v.* Hickes, determined in the Court of Common Pleas on the 28th June last clearly establishes the correctness of the practice in England.

school attendances of three hours each daily, and the half-time system fits with these arrangements perfectly. It is now working excellently—many of the prejudices against its adoption having been overcome during these later years.

In Scotland the meal times of operatives and mechanics are differently arranged from those in England. The breakfast time in Scotland is generally from 9 a.m. to 9.45 a.m., and the dinner time from 2.15 p.m. to 3 p.m., and the schools are open from 9 a.m. to 2 p.m., with a short interval for recreation.

It is therefore attended with many inconveniencies to fit the half-time system to the Scotch arrangements of work and schools, for the change of sets must be made between 12 at noon and 1 p.m., when the mill is in full operation, and three hours schooling cannot be had for each set on the same day, unless the two sets are in school at the same time for at least an hour, and their places must be vacant at the mill for that time. Consequently half-timers are only employed in Scotland in factories in which schools have been established to meet the requirements of the system, or in public schools expressly arranged for the reception of the half-timers, or the half-timers are all employed in one set at the same time of the day, attending school also altogether: this however is only done where the number of half-timers in a mill is very small.

The most recent returns from Scotland show that there are only 1,629 half-timers, or 1·8 per cent. of the whole number of persons employed in factories, while 62,087, or 9·6 per cent. are half-timers in England: and out of the 568 factories in Scotland, in 41 only are half-timers employed.

Of the 1,629 half-timers, 1,075 are employed in factories having schools on the premises, and only 511, employed in factories, attend public schools.

But the half-time system as sanctioned by the Factory Act 7 Vict. c. 15., could be adapted with a very slight modification, for which, however, a Parliamentary authority would be necessary, to the habits and circumstances of the Scotch people. The half-time system may be worked either by the *half*-day arrangement, which I have just described; or by the *alternate* day plan, which is as follows:—

By s. 31 of 7 Vict. c. 15. it is enacted that children may be employed on three alternate days per week for 10 hours per day, attending school for five hours on the other three days, provided the young persons and females in the factory be also restricted to 10 hours work per day. This enactment was passed when the legal hours of work of young persons and women were 12 per day, and the proviso was necessary in order to prevent the half-timers (children under 13 years of age) being employed for more than 10 hours, which the

legislature would appear to have fixed as the proper limit for children of tender years, if worked upon alternate days. This alternate day system is managed in a manner exactly similar to the half-day system. The children are divided into two sets, which work in the factory and attend school on alternate days, instead of on alternate half-days. This system is rarely in operation in England, because of the necessary reduction of the hours of work of young persons and females from ten and a half to ten hours per day, but it is peculiarly adapted for Scotland, and if it were permitted to mill occupiers to employ children on alternate days for the same number of hours as young persons, I am satisfied that it would be of great advantage to the operatives and to the manufacturers. When the limit of 10 hours was fixed for the alternate day employment of children, the labour of young persons and females extended to 12 hours per day, i.e., work commenced at 6 a.m. and continued until 8 p.m., with intervals of two hours for meals; and if it had been legal to employ children for 10 hours per day, while the young persons and females were employed for 12 hours, it is manifest that there would have been a great temptation to employ children as long as the young persons and females, and thus the limit of 10 hours for children would have been constantly exceeded. But no such evil as the employment of children under 13 years of age for 12 hours per day could happen now, for the work of young persons and women is limited to ten hours and a half per day, to be taken between 6 a.m. and 6 p.m. It is, therefore, only a question of half an hour's extra labour, not every day, but on alternate days, which prevents this system from being adopted in Scotland, where the other system, the half-day system, is impracticable as a general measure. I have not felt myself authorized to sanction the employment of children upon the alternate day system, unless the hours of work of the young persons and women have been reduced to 10 hours per day, as provided for by s. 31 of 7 Vict. c. 15., although I have been satisfied that by permitting it I should be conferring a boon upon the operatives; because the law is clearly laid down, and it would be highly inexpedient for me, even in furtherance of a proper object, to sanction a departure from an express enactment, but an alteration of the law, which would be opposed I believe by no one (as it would be no real infringement of the Factory Acts), permitting the employment of children for the extra half-hour per day on alternate days, which practically would only be on three days in one week and on two days in the following week, would enable the Scotch manufacturers and operatives to give a fair trial to the system. The alteration would also be of much value in England. In many districts the operatives live at some distance from the mills, and the

parents frequently complain of the great inconvenience of the existing arrangements, for instance, a child will have to walk two miles to a mill at 6 a.m.; it returns home at 12 or 1; it has to be washed and dressed, to eat its dinner, and to be sent to a school a mile from the house by 2 o'clock. If the alternate day system were legal, the child would go to the mill and stay at the mill all day warm and under cover, and would go to school the next day and remain there all day also warm and under cover; and though this may appear a slight matter to legislate upon, it is a matter which has a serious effect upon the health of children of nine years of age. Complaints are frequently made by parents, especially in the winter, and they are often deterred from sending their children to the mills, when they would otherwise be glad for them to work and attend school on alternate days.

The Act which was passed in 1861, for placing lace factories under the operation of the Factory Acts, came into effect on the 1st of August last, and I spent the greater part of the months of July and August in Nottingham, the seat of the lace manufacture, in order to give every explanation and assistance in my power to the persons interested in the administration of the new law. The custom of the lace trade, as carried on in Nottingham, presents very considerable differences from what was known as the factory system, before the passing of the Factory Acts thirty years since. In the lace trade the men were never over-worked. Although the machinery in lace factories was kept in motion from 4 a.m until 12 p.m. (the ordinary hours of a lace factory), the men worked by shifts and relays, and the labour of each never exceeded 10 hours per day. Those who commenced at 4 a.m. never worked later than 6 p.m., having an interval of four hours for rest and refreshment; and those who worked as late as midnight never commenced earlier than 9 a.m., and had an interval of five hours. If trade were very brisk, the machinery would be kept running during the twenty-four hours, and the work of each man would be extended to 12 hours per day, still by shifts and with intervals for rest as before. But the case differed with the employment of women and children. They did not work by regular relays or shifts, but although not employed continuously, they were liable to be called upon early and late, and were required to be at hand to perform work to keep the men supplied with materials for the lace machines. The actual effect of the diminution of the hours of work of females and children in cotton and other factories was to restrict also the hours of work of the men within the same limits as those of the females and children; but in lace factories the men work as before, and the motives of the operatives in urging legislation for lace factories may be so far regarded as unselfish that the men reap no direct advan-

tage from the restriction of the hours of work of females and children. I believe that for a short time to come the men will be inconvenienced by the restrictions, and that they may not earn as much in their 10 hours work as before. If the work which the children used to perform after 6 p.m. cannot now be performed by older hands, or if some arrangements cannot be made for anticipating the requirements of the men between 6 p.m. and 10 or 12 p.m., some diminution of the amount of lace produced will be the consequence, and the earnings of the men will be reduced in proportion; but I do not anticipate that this inconvenience would be of long duration. Diminution of production is no less inconvenient to the master than to the operative, and it will be to the interest of both to prevent personal loss.

Although the number of lace factories or separate buildings in Nottinghamshire and Derbyshire is about 90, the number of persons owning or hiring lace machines driven by steam power is 308, and each of these persons is respectively responsible for the observance of the law, in connection with the machines owned or hired. From this it will be seen that the work of inspection in this part of my district has been much increased; but from the excellent feeling which was manifested by the lace manufacturers in all their communications and interviews with me, I am happy to say, that the putting the Act into operation has been greatly facilitated, and I believe the work will be much lighter than the mere numbers would lead me to anticipate.

The operatives, with very rare exceptions, expressed strongly their appreciation of the passing of the Lace Factories Act. They considered that the prevention of the employment of females and children after 6 p.m as likely to be of inestimable benefit to them. Many who had wrought in lace factories from the ages of six, seven, and eight years, and who had to deplore the sacrifice of their early years, were justified in expressing their convictions. The restriction of the hours of labour in mills and factories has now been so long the law of the land, that a generation has grown up which knew not overwork, and the enjoyment of the blessings conferred by the Factory Act having become a normal part of their condition, is less remarkable to them, because they have not suffered from unreasonable and hurtful employment in their youth. But in Bleaching works and Dyeing works, and in Lace factories, the hours of work have been excessive within the last few years, and those who now are restricted to 60 hours per week are keenly sensitive to their altered position. The few hours in the evening and the afternoon of Saturday are great boons, especially to the women, and I have been told again and again how much they appreciate these alterations, and of what value they are to them. I cannot help feeling, from what I see passing

around me, that there is a strong settled conviction that 60 hours a week ought to be the limit to the employment of females and youths. It is frequently remarked to me that if with the expensive machinery of a "factory" 60 hours per week have been found to leave a fair margin of profit, other trades can bear a reduction to the same level without ruin to the proprietors. I mentioned in my Report for the half year ended 30th April 1860, an instance in which the operative spinners declined, when desired by the masters, to work more than 60 hours per week, although it was legal for them to be so employed; and more recently instances occurred in Scotland showing how jealous the operatives are of any interference with the "60 hours per week." It will be in your recollection that the Bleaching and Dyeing Works Act was passed in 1860, but that none of its provisions were to come into operation until the 1st of August 1861, when the hours of work were to be restricted to 12 per day and 69 per week, with a further provision that the hours should be reduced to 60 per week in August 1862. Upon the 1st of August 1861, when the first restrictions came into effect, the whole of the females employed in a large bleaching work in Scotland refused to work after 6 p.m., alleging that the law restricted them to 10 hours per day, and that they would work no longer. They insulted the manager, and behaved altogether in a riotous manner. The proprietors of the works adopted a most sensible course. It was clear that the women acted under a mistaken notion that the restriction to 60 hours per week came into effect at once, and they communicated with Mr. Campbell, the Sub-Inspector at Glasgow, who went over to the works and explained to the women what the law really was, and that they must therefore wait a year for the final settlement of the hours of work. The explanation was so far satisfactory to the women, that they returned to their work and continued to work for 12 hours per day until the 31st of July last. The views of the operatives upon the proposition made in the early part of last session of Parliament to postpone until August 1863 the reduction of the hours of work to 60 per week, is another proof that they have been earnest in seeking legislative restrictions in bleaching works, &c. The proposition was simply to permit for one year longer the employment of females and young persons for 69 hours per week. No other alteration in the law was suggested, and the chief plea urged for this one alteration was that, in the existing condition of the trade, it was greatly to the advantage of the operatives that they should be allowed to work 12 hours per day, or 69 hours per week, and make wages when they could. I expressed at the time my belief that the operative bleachers in Scotland (having very few bleaching works under my inspection in England) would not consent to such a proposition, and I believe it was mainly

due to the action of the operative bleachers in Scotland that the Bill was abandoned. I had an interview with some of the most prominent of the operatives in Glasgow in September, and they expressed, as representing the trade, the strongest repugnance to any abandonment of the principle upon which the Bleachworks Bill is founded, viz., the restriction of the ordinary work in bleaching and other establishments to "factory" hours, i.e., 60 hours per week.

There is both in the Bleachworks Act and in the Lace Factories Act a noteworthy exemption from one very important provision of the Factory Act: that relating to the fencing of *mill gearing* and *machinery*.

With respect to the former description of works, bleaching and dyeing works, I regret that some enactment was not passed requiring *mill gearing*, as defined in s. 73 of 7 Vict. c. 15, and in s. 5. of 19 & 20 Vict. c. 33, to be "securely fenced." It is true that the mill gearing in printworks is not required to be securely fenced by the Printworks Act, but I have no knowledge of the number of accidents in such works from there being no provision in the Printworks Act even for the reporting of accidents. I have seen occasionally in Printworks main shafting and gearing wheels upon main shafting (that which constitutes mill gearing as I have described above) very much exposed, and as I believe likely to cause serious accidents, for workpeople are constantly employed in close contiguity to it. I see also in Bleaching and Dyeing works similar shafting and gearing wheels, which I know to be dangerous, because in this class of works it is obligatory upon the occupiers to report accidents, and accidents which have occurred in them are reported to me by the certifying surgeons in conformity with the Bleach and Dyeworks Act. I do not consider it would have been necessary to enact for Bleaching and Dyeing works the other regulations of the Factory Act touching the fencing of subsidiary *machinery*, because there is little or no minor machinery in these works; but it would have been of value to life if the secure fencing of those parts of the main shafting, which are properly secured in cotton and other factories (and which I doubt not will in the course of time be properly protected in bleachworks and dyeworks), had been guarded at once, as they would have been had the *mill gearing* been required by law to be securely fenced in all works under the operation of the Bleaching and Dyeing works Act.

With respect to Lace factories the question is different. The mill gearing, i.e. the main shafting, is almost always out of reach, as the Lace factories are generally of modern construction and the rooms of good height, and if proper precautions are taken accidents would rarely if ever occur therefrom; I do not therefore consider the re-enactment of the regulations as to the *mill gearing* to have been imperative in lace factories. But in

lace factories there is a large quantity of the minor *machinery*, for the lace machines take up a large part of the area of a lace factory. I have, however, very carefully examined the lace machines and the mode of working them, and considering that women and children are never employed upon lace machines, I think the exemption of lace factories from the *machinery* fencing clauses of the Factory Act to have been justifiable. In this I am also confirmed by the inquiries I made at Nottingham as to the occurrence of accidents in lace factories, which satisfied me that they did not often happen; and from the fact that only three trifling accidents have been reported to me since the coming into operation of the Act in August last in the lace factories under inspection, in which upwards of 3,000 persons are employed. Another branch of textile manufactures carried on in Nottinghamshire, and chiefly in Nottingham—hosiery—is like the manufacture of lace, singularly free from severe accidents, but the cause for this is evident enough upon investigation. The hosiery factories are, like lace factories, mostly modern, with ample room for mill gearing, and the machinery at which the females and young persons work is of such a nature that none but slight accidents can occur, and these arise more from inattention and carelessness than from any other cause, so that although there are very numerous establishments in Nottingham and its neighbourhood, lace factories, hosiery factories, and bleaching works, yet the number of accidents caused by machinery in these various establishments is very trifling, in proportion to the extensive system of textile manufacture which now prevails in that town.

I regret to have to refer to one portion of the Bleaching and Dyeing works Act which has caused considerable disappointment in various parts of my district, viz., the exemption of calenderers and finishers from its provisions.

When the Bill was introduced, it applied only to Bleachworks and Dyeworks and to the various processes carried on in either of these works. Thus the processes of calendering and finishing when carried on in a Bleaching work or Dyeing work were as much under the operation of the Act as the actual processes of bleaching and dyeing themselves were. But there are many establishments in which calendering and finishing are carried on as a distinct and separate trade, which would not have come under the operation of the Act; and the dyers and bleachers who also calendered and finished felt that they would be placed at a great disadvantage by the exemption of what may be called the "pure calenderers and finishers," who would be at liberty to keep their hands at work at all hours of the day and night, upon precisely the same work, which, when performed in a Bleaching or Dyeing work must be suspended at 6 p.m.: they obtained therefore certain amendments

4.553

in the Bill in order to remedy this partial application of legislative restrictions, and accordingly the definition of a Bleachwork or Dyework was supposed to have been made to include calenderers, finishers, &c., by the insertion of the word "finishing" after the words "bleaching and dyeing," first in the interpretation clause, and afterwards in another important clause.

The interpretation clause (Section 7) is as follows:—

"In the construction of this Act, the words "Bleachingworks," and "Dyeingworks," shall be understood respectively to mean any building, buildings, or premises in which females, young persons, and children or any of them are employed, and in one or more of which buildings or premises any process previous to packing is carried on in the occupation of bleaching, dyeing, *or finishing* of any yarn or cloth, and in one or more of which processes steam, water, or other mechanical power is used or employed."

The other clause in which the word "finishing" is used is the 11th:—

"Provided always that for the purposes of this Act (except as in this Act otherwise provided) the time within which a person may be employed in bleaching, dyeing, *or finishing* works is from six of the clock in the morning to eight of the clock in the evening, but so that such person shall not work more than eight hours on Saturday, twelve hours on any other day, nor more than sixty hours in a week."

Acting upon the assumption that the intention of the legislature was confirmed by the terms of these two clauses, and that "finishing" works were to be dealt with as bleachworks, and after having had interviews with several of the principal calenderers and finishers at Manchester, I sent the same formal notice to the calenderers and finishers as to the bleachers and dyers, of the coming into operation of the Bleach and Dyeworks Act. Two of the finishers declined to comply with the Act, and an information was laid against one of them for an offence against the Bleach and Dyeworks Act, in order to obtain an authoritative decision; and the magistrates decided that the premises were within the operation of the Act, and convicted the defendant. The defendant applied for a case, to which no objection was offered, and the Court of Common Pleas, before which the point was argued, delivered the following judgment:—

"The Act only applied to bleaching and dyeing works, properly so called, and the business in which the child was engaged was not an incident to the occupation of bleaching and dyeing, and, therefore, the conviction was wrong."

It follows from this decision that the insertion of the word "finishing" in the interpretation clause, and in section 11, has no force whatever, for the calendering and finishing when performed in a bleach or dyework would have been just as much under the operation of the Act as if the word had not been inserted at all. I have visited a great many of the finishing works in my district, and I lament the insufficiency of the interpretation clause to include the processes of "finishing" and "calendering" &c. In many I found the heat to be excessive; the rooms very dirty; children under age employed all day long, without any restriction, and very long hours are frequently worked. The operatives have taken a great interest in the matter; they have been greatly disappointed at the failure of the Act, to reach the occupations of calendering and finishing, and their dependent processes; they have complained of over-work in these establishments, and it is greatly to be regretted that the clear intention of the legislature should have failed by reason of a faulty definition.

Having become aware during my inspections of the measures adopted by some of the principal manufacturers in Lancashire for alleviating the distress of their own hands, and having been convinced that much unobtrusive, yet most effectual, assistance was afforded by many manufacturers, I considered it would be very desirable to show in what manner that aid was given. In order to bring the information to as late a date as possible, I requested the Sub-Inspectors in the chief cotton districts in the middle of October last, to make a short report of what had come under their notice in their several districts. I did not consider it expedient that they should make special inquiries as to the arrangements made at every mill they should visit, as that would have assumed somewhat of an inquisitorial character; but I wished for statements of that which came under their notice, and which would be more in detail than I could have given from my general knowledge of what was being done. I annex extracts from the reports I have received from Mr. Ewings, of Preston, Mr. Patrick, of Rochdale, Mr. Coles, of Manchester, Mr. Oram, of Staleybridge, and Mr. Henderson, of Blackburn; those being the towns in my district chiefly affected by the cotton famine.

There is an important point to be taken into consideration when reviewing the part taken by the manufacturers in maintaining their hands, viz., the number of those able to make sacrifices for their hands in a time of general depression.

I find by the last return to Parliament that there were 2,887 cotton factories in the United Kingdom in 1861, 2,109 of them being in my district. I was aware that a very

large proportion of the 2,109 factories in my district were small establishments, giving employment to few persons, but I have been surprised to find how large that proportion is. In 392, or 19 per cent., the steam engine or water wheel is under 10 horse power; in 345, or 16 per cent., the horse power is above 10 and under 20; and in 1,372 the power is 20 horses and more. The above are the proportions in my district, and I assume that the proportion for the rest of the kingdom would be as nearly as possible the same. A very large proportion of these small manufacturers—being more than a third of the whole number—were operatives themselves at no distant period; they are men without command of capital, which has been invested in their trade, and are consequently unable, from their resources having been so much crippled, to contribute much to the necessities of others. The brunt of the burden then would have to be borne by the remaining two-thirds, and it is from the methods adopted in several of the larger establishments that we can best learn how far the operatives have been assisted by the manufacturers.

There is one method of relief, of which it is impossible to estimate the extent, that of keeping a mill at work either wholly or partially. There can be no doubt that the running of the larger number of mills has, for some time past, been attended with loss to the manufacturer; it has been, and is, their mode of maintaining their hands. It is well known in the trade that many of these mills are actually run at a loss, and it is very doubtful whether a mill can be now run without a loss, for two, three, or even four days per week. There are certain expenses upon a mill which go on in the same proportion whether the mill be running short or full time, as, for instance, rent, rates and taxes, insurance against fire, wages of several permanent servants, deterioration of machinery, with various other charges upon a manufacturing establishment, the proportion of which to profits increases as the production decreases. Although it is a point upon which scepticism may, at another time, not be ill-natured, yet I firmly believe that the running of mills at the present moment is unprofitable, but at the same time I believe it to be the best and most efficient mode of helping the hands to tide over the winter, as it frequently is, in the existing state of things, the most expensive to those who adopt it. The last published accounts of the state of the Lancashire and Cheshire cotton districts have the following analysis of the cotton mills and the time during which they are running. The number of mills of which returns were obtained were 1,590.

No. of operatives on full time,	40,146,	or 11·3 per cent.
„ short time,	134,767,	or 38 „
„ unemployed,	179,721,	or 50·7 „

If the returns from Manchester and Bolton, being chiefly engaged in fine spinning, a department which has been less affected than the other branches of the trade, be excluded, the number of hands unemployed would bear a larger proportion.

No. of operatives on	full time	-	8·5 per cent.
„	short time	-	38 „
„	unemployed	-	53·5 „

If the running of a mill during the crisis be, therefore, attended with loss, there are nearly one-half of the cotton manufacturers of Lancashire and Cheshire maintaining and helping to maintain their hands at the sacrifice of their own property.

Another kind of relief is less generally adopted, but the instances are better known, because the mode of administering it becomes more a matter of notoriety, viz., the payment of extra wages when a mill is running short time, or the payment of a proportion of wages when the mill is entirely closed. Several instances of this will be mentioned in the Reports of the Sub-Inspectors; but there is one firm, not in the districts of either of the Sub-Inspectors whose communications I report, who have closed some of their mills, and are running others short time, whose establishments usually give employment to above 2,000 hands, but they pay all their workpeople, whether unemployed or working only one or two days, three days' wages each per week. Calculating, as is usual, the average wages of a cotton factory at 10*s.* per head, this firm has been for some time contributing 500*l.* per week for the support of their hands.

I now beg to refer to the Reports of the Sub-Inspectors, who reside in localities most affected by the cotton famine. Their statements will give a good general view of the private efforts of manufacturers in various localities. The firms mentioned in this report, 40 in number, are mostly among the principal establishments in the different localities, and give employment, when their mills are at work, to upwards of 30,000 men, women, and children, and the amount of relief thus afforded extends over a large area, and amounts in the aggregate to a very considerable sum.

In forwarding the following statements, the Sub-Inspectors have referred to the other instances which have come under their notice in general terms. As I had requested them merely to give me a memorandum of the more prominent instances, the firms mentioned are nearly all of considerable standing and notoriety, but if special inquiries had been made the list would have been greatly enlarged. For instance, one Sub-Inspector says:—"No doubt a great deal is done by "others in the way of shoes, clogs, and clothing, which does "not come prominently before the public." Another Sub-Inspector says:—"The fact is scarcely a week elapses but

"that in the course of my official wanderings I come "across some quiet unobtrusive act of kindness on the "part of masters to their hands scarcely known beyond the "gates of the factory where it originated, which shows that "they have now come nobly forward, with one or two excep- "tions, to endeavour to allay by all the means in their power "the distress which so unhappily prevails amongst us." Another Sub-Inspector writes:—"I have heard of several "instances where employers in the country are giving help "to their workers in different ways." My object was not to obtain an exhaustive list, but to show in what a variety of forms assistance was being given to the operatives by their own masters, and to show in cases of this nature what an extensive work these masters had undertaken.

Mr. Ewings, whose district comprises Preston, Chorley, Clitheroe, Lancaster, North Lancashire, Westmoreland, and Cumberland, mentions by name various firms who have been assisting their hands. He says, under date 27th October:—

"Most liberally as the public has generally come forward to aid the distressed, not many similar instances to that of Messrs. ———* will be found here.

"Of the large factories closed about here Messrs. ——— distribute bread and soup three days a week, and they require no rents from about 200 cottages. A good school is open free to all the children, and at my visit last week there was a large and full attendance.

"Messrs. ——— are doing the same. They are also lending money to some families, to be repaid when work begins again.

"Messrs. ——— distributed last week 20 loads of potatoes, bacon, and vegetables.

"Messrs. ——— are paying their mill hands now out of work the men 2*s.*, women 1*s.*, and children 6*d.* each, weekly."

Mr. Patrick's district extends to Rochdale, Littleborough, Rawtenstall, and their neighbourhood. He reports to me that much has not been done, as far as he could ascertain. There are, however, a considerable number of woollen mills in his district, which is not so exclusively a cotton district, like Preston, Ashton, or Blackburn. He mentions some instances, however, which have come under his notice;—

"Messrs. ——— are supporting their hands with food and money, and were prepared to do so to the extent of 2,000*l.*

"Messrs. ——— give away about 40 gallons of soup a week; since their mills stopped they have paid from 12*l.* to 14*l.* per week in wages to their overlookers for work done in the shape of draining the land, and other odd jobs. Those workpeople who

* The firm to whom I have just referred as paying their hands three days' wages per week.

occupy houses belonging to the firm are not required to pay any rent.

"Mr. ——— gives two quarts of soup to each adult three times a week. He also finds them coal, and does not require any rent.

"Mr. ——— gives each hand 2 lbs. of meat per week, and lends a shilling or two occasionally.

"Mr. ——— also gives soup. Several manufacturers have advanced their hands money by way of loan, but from what I have learnt, they have discontinued (24th Oct.)

"Others have given employment to as many of their hands as they can in other occupations, and others again charge them no rent for their cottages."

Mr. Coles' district consists of Manchester and its immediate neighbourhood, as Salford, Pendleton, Swinton, Pendlebury, Clayton, Droylsden, Openshaw, Fairfield, and Bury. He has given me the following account of what has come under his notice prominently, and it illustrates in a remarkable manner how various may be the methods by which the workpeople are assisted; and the arrangements here enumerated are not of yesterday; many have been in operation since the pressure of the times was felt in the several mills, in some of them for months past:—

"Manchester, 30th October 1862.

"According to your wish I send you some account of what various millowners in my district are doing for their hands, independently of relief obtained through local Committees and Boards of Guardians. There may be other instances, but the following have come to my own knowledge. Some of them I have mentioned to you before:—

A. B.—"Mills working two days a week. This firm keeps a register of all the hands in their mills, their condition, whether married or single, &c. &c.; and, though their mills are only working two days a week, give wages at the rate of three days, and in the case of females being either widows, or with husbands out of work and having families of young children they allow one shilling per week extra for each child. They also pay the school wage of the children employed by them, and have established sewing classes for the females.

C. D.—"Mills entirely stopped. Are giving each week 2*s.* 6*d.* to each adult man, 1*s.* 6*d.* to each woman, and 1*s.* to the young persons under 16 years of age.

E. F.—"Mills entirely stopped. Are giving each week at the rate of one day's wage to each of their hands.

G. H.—"Mills entirely stopped. Have established sewing classes for the employment of their female hands, to whom they pay 8*d.* per day.

I. J.—"Mills entirely closed. Has been giving soup and bread twice a week to each of his hands.

K. L.—"Mills entirely closed. Gives his workpeople soup and bread four times, and bacon and bread twice a week.

M. N.—"Mills entirely closed. Distributes nearly 100*l.* each week to the hands employed at these mills, as their necessities require it.

O. P.—"Working three days a week. Has been selling bacon at wholesale price to his hands, and is giving them soup every Saturday.

Q. R.—"Working about two days a week. Are selling bacon at wholesale price to their hands, and giving it away to the most necessitous. They pay the school wage of the children employed by them, and have remitted the rents of their cottage property inhabited by their workpeople.

S. T.—"Mills entirely closed. Are giving relief to their workpeople and families on the following scale :—

	s.	*d.*
Heads of families	2	0
Single man or woman (or married without children)	2	6
Children under five years of age	1	0
Do. over five years of age	1	6

In addition to this they give soup and bread weekly to the most necessitous, and are selling potatoes, bacon, and meal at wholesale prices. They have opened sewing classes for the females and schools for the young persons and children of both sexes. They give all their overlookers four days a week wages.

U. V.—"Mills entirely stopped.

"The most perfect system of relief that I have seen at any mill in my district is that in practice at these mills, which is so excellent that it deserves especial notice. I have therefore drawn out for your information a brief account of the method they pursue, as witnessed by me at a visit I have just paid to the mills.

"These extensive mills are now entirely stopped, but the proprietors are giving each week at the rate of a day and half wages to their hands, and in addition to this have opened provision stores within their mills, where their hands, if they please, can purchase provisions at wholesale prices. This advantage, as will be seen by the table given below, increasing the value of the day and half wages to that of about two and a half days.

Articles Sold.	Prices Sold at.	Usual Retail Price.
	d.	*d.*
Bread	4 per 4 lb. loaf	6
Bacon	4 per lb.	$7\frac{1}{2}$
Tea	2 per oz.	$2\frac{1}{2}$
Coffee	$1\frac{1}{2}$ per 2 oz.	2
Meal	$7\frac{1}{2}$ per 5 lbs.	9
Rice	$1\frac{1}{2}$ per lb.	3
Soup	1 a quart.	–

"In order to illustrate their mode of action in giving relief, I will take for example one of the hands, whom I will call Jane Chadwick, weaver, receiving at the rate of a day and half wages, 2*s.* 8*d.* a week.

"Jane Chadwick receives a ticket on a certain day of the week on which this amount is marked, and on taking it to the pay clerk states how she wishes to have it, whether in cash or provisions, or part of both, and we will suppose her account to stand as follows :—

	s.	*d.*
Bread, 6 lbs.	0	6
Bacon, 2 lbs.	0	8
Tea, 2 oz.	0	4
Coffee	—	
Meal	—	
Rice, 2 lbs.	0	3
Soup, 3 qts.	0	3
Cash	0	8
	2	8

"The clerk makes out this list, and handing her the cash gives her a number of separate tickets, one for each article, to be given in at the stores as she receives the goods named on them, which she can do on any day, except Sunday, during the week, as she requires them. It is worthy of particular notice that about two thirds of the whole sum given to the hands is expended by them each week in the purchase of provisions.

"The firm have also opened sewing classes for the single women and schools for the instruction of young persons of both sexes, and an excellent reading room exclusively appropriated to the use of the overlookers in their mills."

Mr. Oram, whose district comprises Ashton-under-Lyne, Staleybridge, Mossley, Oldham, Lees, Mottram, Glossop, and North Derbyshire, has taken an active part in Ashton-under-Lyne in organizing adult schools for men and sewing classes for females, and in superintending the distribution of clothing, &c. with the Borough Relief Committee.

In reply to my inquiries he wrote as follows :—

"With reference to the question what has been done by the millowners in connection with the present distress, I beg to remark that in addition to the contributions of the millowners to the general relief fund which some of them receive back with an addition of 33¼ per cent. for the relief of their own hands, others have acted most liberally, but in a manner that prevents their contributions appearing in any general list of subscriptions; for instance,—

"Mr. ———, whose donation of 500*l.* to the Relief Committee, is as nothing when compared with his weekly contribution towards the relief of his own hands. He has fitted up a

room in his mill, and established a sewing class for young women, which numbered last week 583, who receive instruction in reading, writing, and arithmetic in the morning and sewing and knitting in the afternoon. He has also furnished a room in the factory for the men where they receive instruction daily, the number last week being 386.

"The total number in the sewing class and adult school, including 76 young persons who have also been admitted, is 1,045, at a payment last week of 15*l.* 0*s.* 6*d.* The numbers have gradually increased, and the expense to the present time has been 728*l.* 1*s.* 11*d.*

"He has purchased a supply of clogs to distribute with the socks they have knitted.

"The school fees of 373 children at the British School, which he has paid amounts at present to 48*l.* 19*s.* 3*d.*

"Having purchased a large supply of ham, bacon, and potatoes, he has sold it at a reduced price, viz.:—Potatoes at 6*d.* per score, ham and bacon at 2*d.* per lb., the loss to the present time being 64*l.* 5*s.* 8*d.*

"The men are regularly drilled by two masters engaged for the purpose, and of an evening a reading room has been opened.

"With equal liberality, Mr. ——— allows the hands in his employ as under,—

Children under 13, 2*d.* per day and school wages.
„ 13 to 15, 4*d.* per day and school wages.
All persons above 15, 8*d.* per day.

"He has fitted up rooms in his mill for sewing and educational classes, selecting the teachers for the men's educational class from the overlookers of the various departments in his mill who are paid from 8*s.* to 10*s.* per week.

"There are at present—

385 men in the adult class.
34 youths, 13 to 15, at national school.
33 children under 13 at „

452 males.

442 women in the sewing class.
100 married women who remain at home.
48 girls, 13 to 15, at national school.
19 girls under 13 at „

609 females.

"The amount paid to the above each week, as per the before-mentioned scale, is on the average 180*l.*, or at the rate of between nine and ten thousand per annum.

"In addition, he contributes 50*l.* per month to the Local Relief Committee, and is allowing his tenants to live rent free, at a sacrifice of about 60*l.* per month on his cottage property, and is distributing meal and flour to the most needy cases that come under his notice.

"As in the mill previously mentioned, the men are regularly drilled.

"Messrs. ——— advance 2*s.* 6*d.* per head to their hands weekly, the total amount being already above 1,650*l.*, and above 400*l.* is outstanding for rent, part of which Mr. ——— has to pay, as he rents the cottages for his hands.

"They give away 1,080 lbs. of bread and 3½ tons of coal weekly, and have opened a room in one of their mills for the instruction of the men in their employ, a certificate of attendance at which place is accepted by the Board of Guardians as a labour test, instead of oakum picking. They have also a reading room supplied with various papers.

"The same firm have granted the use of and fitted up with steam pipes a large room in one of their mills for a public adult class for men entirely out of employ, of which I have accepted the superintendence, the men being paid 8*d.* per day, or 3*s.* 4*d.* per week, out of the funds of the borough Relief Committee.

"Messrs. ———, in addition to their subscription to the Local Relief Fund, distribute weekly to married persons (man and wife) 12 lbs. flour, 4 lbs. meal, 3 lbs. bacon, and where only a man or his wife has been working at their mill, 6 lbs. flour, 2 lbs. meal, and 2 lbs. bacon. They give to each unmarried person in their employ, 10 lbs. flour, 3 lbs. meal, and 2 lbs. bacon every fortnight.

"Messrs. ——— have given soup to their hands for several months, the weekly supply being at present 205 gallons. I have tasted the soup, which is excellent. For some time they distributed a kind of pudding or vegetable soup, made of sago, tapioca, oatmeal, &c. on a Friday, to meet the wishes of the Catholics, but I am informed there was afterwards a dispensation from the priest, allowing them to eat soup on the ordinary fast day.

"Mr. ———, in addition to his contribution to the Local Relief Fund, gives 1*s.* per head weekly to those out of work, and distributes 520 gallons of soup each week.

"Messrs. ———, in addition to their public subscription and a loss of 25*l.* per week in rentals, give 1*s.* 6*d.* per week to each hand out of employ, and distribute about 500 gallons of soup of a superior quality weekly.

"Messrs. ——— distribute soup and bread or "potatoe hash" daily.

"Messrs. ——— distributed bread, "potatoe hash," porridge and milk for some time, but have now united with the General Relief Committee, of which ——— is chairman. They have about 1,000*l.* owing for rents.

"Mr. ——— sets a noble example, not only by his contributions, but in the interest he at all times takes in the welfare of those around him. He has worked full time up to the present moment, and it would be difficult to report what he has done, as his liberality is so well known in the town that his aid is solicited in most of the efforts for the alleviation of distress. In addition to his subscription to the relief fund, he was one of the principal supporters, if not the chief supporter, of a sewing class of 160 girls carried on for some time without assistance from the relief

committee, and in any private subscription raised to save a falling tradesman, he is ever ready to render his support. He has generously lent a lecture room, which he built for the use of those in his employ, for a public sewing class.

"Messrs. ——— are paying their hands four days' wages for three days' work.

"Messrs. ——— have continued to work three days a week upon *good cotton*,* for the sake of the hands, so that they have averaged more than half time; they are making nine days this fortnight, so that the hands may have something additional for Christmas; they have given bedding and clothing and rendered assistance where necessary, and sold provisions at what they cost wholesale in Liverpool.

"Messrs. ——— pay their hands four days' wages for three days' work.

"Messrs. ——— have continued to work three days a week on good cotton for the sake of their hands, so that they have averaged more than half full-time wages. They have given clothing and bedding, and rendered assistance where necessary, in addition to purchasing provisions and selling them at the wholesale price.

"Messrs. ———, who are working short time, allow their hands relief to the amount of 300*l.* per month, and lose 100*l.* per month in rentals.

"Several millowners have placed their mills at the disposal of the various relief committees, and others not previously referred to distribute bread and make various weekly allowances to their hands."

Mr. Henderson, whose district includes Blackburn and its neighbourhood, Accrington, Haslingden, Bacup, and Heywood, reported to me on the 3d November as follows:—

"With respect to the subject matter of your letter of the 16th October, I think the following may be relied on:—

"In Over Darwen, Church, Harwood, Enfield, Accrington, Haslingden, Rossendale, and Bacup the distress is only beginning to be felt in its severity, and the relief afforded by millowners privately has only been partial, and to a comparatively speaking trifling extent. In none of these places have I heard of any cases where millowners distributed relief in the shape of cooked provisions. Many of them have supported the families of a

* Working up good or bad cotton makes a material difference to the operatives. In the earlier part of the year, when manufacturers were endeavouring to keep their mills at work by using up all the moderately priced cotton they could obtain, much bad cotton was brought into mills in which good cotton was ordinarily used, and the difference to the operatives in wages was so great that many strikes took place on the ground that they could not make a fair day's wages at the old rates. I have been assured that in some cases, although working full time, the difference in wages from working bad cotton was as much as one half.—A. R.

portion of their workpeople, and the payment of the school wages of such children as choose to attend is frequently made by the employer. Heywood, in respect to suffering from the cotton famine, may be placed in the same category with the places I have just mentioned; but here, I think, individual efforts have been more generally made by millowners to alleviate the sufferings of the poor. Mr. ——— gives an allowance of two days' wages a week to such of his hands as are idle, and pays the school wages of all who take advantage of it. Messrs. ——— have for several months kept a soup kitchen going for their workpeople. In that time they have distributed near to 20,000 pints of soup, with meat, meal, flour, potatoes, and coals in proportion. Messrs. ——— have also dealt in a most liberal manner with their numerous workpeople. Mr. ——— pays 40*l.* per week in maintaining certain of his workpeople."

Mr. Henderson refers only generally to Blackburn in this report, but at my request he has more recently given me a report upon the rise and progress of the distress at Blackburn, and the means taken for alleviating it, a task which he is so well calculated to perform, and for which his position as a member of the Central Relief Committee of Blackburn, and as an active participator in the labour of administering relief, has given him the best means of collecting information, that I have ventured to embody it here, and it appears to me to be a most valuable and interesting communication:—

"In considering the town of Blackburn in connexion with the unparalleled calamity which has overtaken the manufacturing industry of Lancashire, it is no exaggeration to say that it has suffered quite as much as any of the chief towns which serve as centres of the cotton manufacture. Perhaps no town owes more of its progress and prosperity to the rapid development of the cotton trade during the past few years, which was fostered by the opening up of fresh markets for manufactured goods in the East, and by an abundant supply of good cotton at a moderate price from the Southern States of America. The census returns for 1861 for Blackburn show an increase, in round numbers, of 50 per cent. over those for 1851, and the energy and spirit of the population keeping pace with their increasing numbers, Blackburn promised soon to take precedence in importance of towns in the county which could boast of a corporation and historical associations when the former was but a straggling village. But, unfortunately, the very causes of this flourishing prosperity proved, in the reaction which followed, the main sources of that intense and protracted suffering which has been so manfully endured by the people, and which has placed Blackburn in the foremost rank as deserving of the sympathy and the aid so liberally extended to the cotton districts.

"The depressed state of the markets for cotton manufactures in the East, early in 1860, had a corresponding effect upon the

trade of Blackburn, in which 30,000 power-looms are usually employed almost exclusively in the production of cloth to be consumed in the East. There was consequently but a limited demand for labour for many months prior to the effects of the cotton blockade being felt, and the population were therefore by no means so well prepared to meet the disastrous consequences of the American difficulty as in some other towns. The large consumpt of American cotton in Blackburn (something approaching to two millions of pounds weight per week) caused the cessation of its import to be felt at once, and by the month of August 1861 many large establishments were closed, while a still larger number went upon short time. In December a movement was originated which had for its object the formation of a relief committee, and the raising of funds to maintain the unemployed operatives. Many leading merchants and manufacturers, sceptical of the powers of endurance of one or other of the belligerents in the United States, or entertaining the opinion that the distress had not yet attained the point at which such a measure became necessary, discouraged, or at best only gave the movement a lukewarm support, a course of action which presented a striking contrast to the spirit and liberality which the same parties displayed at a future period, in contributing to the Relief Fund, when the distress and suffering among the people had made itself unmistakeably apparent. The winter of 1861–62 was passed by the cotton operatives in a constant alternation between hope and fear—hope that, by short time and shorter rations, they would succeed in weathering the storm which had already broken upon many of them,—fear, that the passions engendered in a relentless war would so complicate the questions at issue between North and South as to render an early settlement of the dispute impossible. In January 1862, from the employment returns issued by the chief constable, it appeared that, of a total number of 21,848 persons whom he recognized as usually employed in the burgh, 6,252 were working full time, 10,920 short time, and 4,676 were totally idle. Spring and summer came and went, but, despite the hoping against hope which appeared to animate the population, each succeeding month saw a rapid reduction, not only in the amount of employment afforded, reckoned by time, but a still more serious reduction in the amount of earnings, in consequence of the difficulties which the inferior quality of cotton used by millowners created in the several processes of spinning and weaving. On the 1st of August the employment returns showed that nearly one-half of the working population were without employment, the figures being as follows:— Usually employed, 26,440; employed full time, 7,162; short time, 7,149; wholly unemployed, 12,099. The state of matters from this time became rapidly worse. The high price of cotton induced by speculation caused a large number of employers who had been struggling to keep their hands partially at work to close their mills, and week after week an alarming increase took place in the number entirely

without employment, until on the 28th of November the return was published as follows :—Usually employed, 27,273 ; working full time, 5,713 ; short time, 4,769 ; wholly unemployed, 16,791. Nearly two-thirds of the people usually at work were thus shown to be entirely idle, while the wages of a large portion of those working were known to be so small that they required supplementing to make them sufficient to sustain the operatives and their dependents. It was now estimated that the distress in Blackburn had reached a point when fully one-half of the population had to be provided for day by day, and week by week, from the several resources of public and private charity. This fact speaks volumes for the condition of the people ; but, to put it in another light, it has been calculated that the weekly loss sustained by the operatives of Blackburn in the shape of wages amounts to 13,500*l.*, and that their total deficiency of income since the present crisis commenced may be estimated at 19*l.* per head, or a gross sum of 518,000*l.*

"To those who are inexperienced in such matters, it is difficult to convey by words a sufficient conception of the magnitude of the task devolving upon the members of relief committees, when they come to deal with such a mass of destitution and such an absolute loss of earnings as these figures represent. The arrangement of the details for administering the relief, entailed upon the members of the committees the necessity of attending frequent and protracted meetings, the harassing nature of which can only be known by personal experience. Fortunately, the growing scarcity of the raw material, and the slow but steady advance in the price of manufactured goods, as the overstocked markets were cleared, operated so far beneficially, that they preserved many of the spinners and manufacturers from being involved in the common ruin. Stocks increased in value so long as they were held, and there has been consequently nothing like that alarming depreciation in the value of property which might not unreasonably have been looked for in such a crisis. In Blackburn, out of 73 firms engaged in the cotton trade, only 18 have been compelled to suspend payments, and the majority of these establishments are small. The employers of labour were, therefore, in a much better position to aid the suffering population than they might have been ; and the earnest devotion with which many of them have attended to the administration of the relief reflects honour upon their order, and cannot fail to have a beneficial effect upon the future relationship between the employer and the employed. It may not be uninteresting briefly to sketch the several plans which the local committees have put in execution from time to time to meet the destitution as it grew upon them, and by which, with the nation's aid, they have been enabled to mitigate and alleviate the suffering arising therefrom.

"The relief afforded by the Poor Law Guardians may be first considered. In November 1861 a marked increase in the number

of applications for relief was observable, and month by month these increased in a rapid ratio, as will be observed from the following figures :—

Week ending	Blackburn District.		Whole Union.	
	No. of Persons relieved.	Cost of Relief.	No. of Persons relieved.	Cost of Relief.
1861.		£ s. d.		£ s. d.
November 9 -	1,980	92 8 1	3,004	152 6 10
1862.				
February 8 -	5,495	297 17 0	7,331	390 4 4
May 10 - -	7,900	466 11 2	9,873	560 12 2
August 9 - -	9,878	569 4 0	11,974	657 18 10
November 22 -	17,861	1,009 10 9	22,726	1,237 7 1

"It may be remarked, that of the 1,009*l.* 10*s.* 9*d.* here shown as having been expended for the week ending November 22, in the Blackburn district, no less a portion of it than 961*l.* was absorbed in the Blackburn township alone.

"For some months the Board of Guardians endeavoured to enforce a labour test upon all able-bodied applicants for relief, but as the present winter approached, and as the numbers increased so rapidly, it was found impracticable to continue this ; and, fortunately, shortly afterwards the industrial and educational schools for men were established, which in some measure superseded the necessity of a test being enforced. The relief given by the Guardians is chiefly in money ; and it is satisfactory to think that the policy which they have pursued during the present crisis has met with the approval of those resident in the town, who are best qualified to express an opinion upon the subject. The labours of the Guardians have been most onerous. Their present rate of expenditure is twelve times greater than usual, and to meet this they have an impoverished body of ratepayers to deal with. Two rates of 3*s.* each in the pound have already been levied, but a third of a still larger amount will be required before the end of the financial year. The overseers are at the present moment 10,000*l.* in debt. While on the subject of the poor rates of Blackburn, a word may be said upon the question which has been raised respecting the share the ratepayers of Lancashire have contributed towards the relief of the distress. In the controversy which has taken place on this subject, it has been overlooked by many, that it is quite as much a question of the mode of rating adopted in each union as it is of the rate per pound levied. In Blackburn for example, in levying the assessment for the poor, only 7½ per cent. is deducted from the net annual value of a rateable subject, while in other unions in England, this 7½ per cent. swells into 25, 40, 50, and in some

cases, it is believed, a still larger proportion. The poor rate of 6*s.* in the pound already levied in Blackburn represents, therefore, one that would amount to 9*s.* or 12*s.* or 15*s.* in another union, according to the deduction made from the actual yearly rent in constituting the area of assessment. Nor does this exhaust the case of the Lancashire ratepayer, for it must be borne in mind that while this county is wealthy to a degree unequalled by any other county in England, yet the same cause which lays a heavy exaction upon that wealth, has rendered it wholly unproductive, and it becomes, therefore, rather a source of weakness than of strength. However paradoxical the statement may appear, yet it is the fact, that in the present crisis the wealth of Lancashire constitutes a source of her poverty.

"As already stated, the Blackburn Relief Committee was constituted in December 1861, and in a few weeks there was established a regular system of relief, which had for its object the supplementing of the amount granted by the Guardians, and the assistance of such others as were in indigent circumstances. Committees of visitors were formed in each ward, and the applicants for relief being called upon at their own homes, each case of distress was at once dealt with as it occurred. The relief granted by the Committee was entirely in kind—bread or flour, and meal; and from the following figures an estimate may be formed of the increased demands made upon the resources of the Committee as the distress extended:—

QUANTITY of BREAD or FLOUR and MEAL distributed for the week ending—

——	Bread or Flour.	Meal.
	lbs.	lbs.
February 10, 1862	7,422	7,756
May 10 „	11,296	10,920
August 9 „	20,605	19,200
November 22 „	52,887	43,200

"The meal and flour is valued at 1½*d.* per lb., so that the quantity distributed during the week ending 22d November represents an expenditure of 600*l.* a week upon this item alone.

"A soup kitchen is also kept in operation by the Committee, at a loss of 30*l.* a week, this sum representing the difference between the cost of the soup and the amount obtained by selling it. At the soup kitchen accommodation is provided for partaking of it on the spot, and each morning hundreds of people breakfast upon a pint of soup and a slice of bread at a cost to them of one penny. The Relief Committee further grant an allowance of one shilling a week to each attender of a sewing, industrial, or educational school, and they also pay the school fees of children under 14 years of age who are not otherwise provided for.

"So soon as it became apparent that during the present winter no mitigation of the distress might be anticipated, the Relief Com-

mittee proceeded to make arrangements for supplying clothing and fuel not only to the recipients of relief but to all families whom the visitors at their discretion should consider entitled to the same. Two hundredweights of coals per week are distributed to each household, and already the Clothing Committee have issued the following articles of bedding :—

4,450 blankets.
2,780 sheets.
1,062 quilts.
1,340 rugs.

"The principle upon which the distribution of clothing has been conducted is to allow 3*s*. per head for each member of a family, and this they were permitted to have either in redeeming goods from the hands of pawnbrokers, or in grants of clothing from the Committee. Altogether, it is estimated that already above 10,000 separate articles of bedding have been supplied to the people of Blackburn. During the present month (December) it is calculated that the Relief Committee will expend in food, fuel, and clothing upwards of 12,000*l*.

"No mode of distributing relief to the unemployed has been so popular among the people, nor more efficient in attaining the object aimed at, than the establishment of sewing classes for women, and industrial and educational classes for men. The former were first opened to accommodate members of some of the religious denominations in town, but, as the Relief Committee at once appreciated their value and granted them liberal aid, the numbers in attendance increased most rapidly. It was thought advisable to continue the plan of allowing each denomination to take care of their own people, a system which, although it may appear exclusive and sectarian, relieved the Committee of much of the difficulty felt elsewhere, where the members of different denominations worked together in classes. Accommodation is given to married women and others not admitted to denominational schools in a class opened by the Strangers' Friends Society of Blackburn, and to which class the Society of Friends have given some efficient aid. From 15 to 20 hours of labour per week are exacted from those attending the sewing classes, for which they are paid 2*s*. each, one-half of this sum being provided by the Relief Committee, the other from private sources. From the return given below of the number of women attending sewing classes, it will be noticed that the clergy of the Church of England have under their care a large proportion of them. Headed by the vicar, the Venerable Archdeacon Rushton, these gentlemen, aided by the ladies of their congregations, have been most indefatigable in their efforts to provide for the unemployed factory girls. It is not possible to speak too highly of the conduct of the ladies of Blackburn ; week after week, and month after month, they devote themselves to this work with a patience and a perseverance which, while reflecting honour on their sex, will long be remembered as one of the bright pages in the record of the present adversity of Lancashire.

" The following is a return of the attendance at the Blackburn sewing classes for the week ending December 6th :—

Church of England - - -	1,164
Roman Catholic - - - -	804
Dissenting denominations - - -	493
Married women - - - -	163
	2,624

" The reading and industrial classes for men were opened somewhat later in the year, but so eagerly was admission sought, that as fast as they could be formed the classes were filled up. For the same week (ending December 6) the returns showed that there were no fewer than 3,274 men in attendance. As in the sewing classes, the clergy of the Church of England have here also taken a leading part in providing for the operatives ; and a few weeks ago, the Hon. Mrs. Gladstone, when on a visit to Blackburn, inaugurated a new industrial school, which is now attended by above 600 weekly. Five days' attendance is exacted from men, for which they receive 2*s.* They are educated in reading, writing, and arithmetic. They are also initiated into the mysteries of carpentering, tailoring, and shoemaking ; and the routine of these duties is occasionally varied by half an hour's drill.

" In addition to the agencies in operation for affording relief and employment which have been but imperfectly sketched in the foregoing pages, there are many others of a private nature in operation, which are doing an incalculable amount of good, by supplementing in special cases what is received from the Relief Committee. Cooked food is being distributed in large quantities daily, a medical kitchen has been established for the supply of food to invalids, and another establishment has recently been opened for supplying mothers with children at the breast with at least one good and well-cooked meal per day. The instances are numerous where ladies and gentlemen have abandoned the comforts and luxuries of home, and have settled in temporary lodgings in Blackburn, in order that they may with their own hands minister to the relief of the destitute. The aggregate value of what is thus distributed will probably never be ascertained, but it cannot fail to amount to a considerable sum. The practice of millowners providing for their own workpeople has not been much followed in Blackburn. The distress being so universal, it has been considered a wiser course to have the relief distributed by the Committee ; but, in addition to liberal subscriptions, several of the large employers have distinguished themselves by acts of liberality, which may justly be termed munificent. The kitchen, the larder, and the wine cellar have been freely drawn upon for aid in cases of extreme necessity and disease ; and while it is true that the

present season of trial is one of unprecedented severity, it may, with equal truth, be said, that never before have the wants and necessities of a people been so thoroughly and so efficiently met. The patience and fortitude with which the privations of the past year have been borne, and which have been so deservedly lauded, have their foundation in a great measure in the fact that the operatives find themselves surrounded by aid contributed from every quarter of the globe, and that they daily and hourly witness great personal sacrifices made on their behalf to an extent hitherto unexampled in the history of such commercial calamities.

"To understand and appreciate the present position of the Blackburn operative, it is necessary to consider his antecedents. During the prosperous years of the cotton trade it was not an unusual thing to stumble on a family with an income of 5*l.* or 6*l.* a week. Young women could earn in many cases 18*s.* or 20*s.* a week, and lads of sixteen years of age very little less. Such wages gave them the command not only of the necessaries, but of many of the luxuries of life. They lived in comfortable cottages; of 12,913 assessments in Blackburn, less than 2,000 are under 4*l.*, while there are about an equal number above 10*l.*; the balance, or fully two-thirds of the dwelling-houses being rated at 4*l.* to 10*l.* inclusive, proves that the great bulk of the working population are comfortably housed. They also clothed well and fed well, and the improvidence which some are inclined to lay to their charge, arose more from negligence and want of thrift, than from the possession of any positively pernicious habit. Nor is there any reason to suppose that they are in this respect worse than their neighbours, whether in the same or in a higher station of life. By a population reared and nurtured under such circumstances, it is not to be wondered at that such a desolation as that from which they now suffer, should be felt keenly and forcibly, and that the bulk of them would shrink from accepting of parochial relief, until driven by necessity to do so. In Blackburn this feeling has been specially exemplified; while the proportion of operatives, according to a recent return, wholly out of employment here, to the number usually employed, is 64 per cent. (the highest in Lancashire), the per-centage of pauperism to the population is considerably under the average of other unions in the county.

"Early in November when the Relief Committee found that they were likely to have their labours largely increased, it was suggested that an arrangement should be made with the Guardians whereby the work of both might be simplified. A plan has been arranged, which it is expected will come into operation in Christmas week, by which it is proposed that the Guardians relieve entirely all those cases on their books upon the 16th of August last, the Relief Committee dealing with the remainder. A minimum scale of 1*s.* 6*d.* per head has been agreed upon, but as this neither includes bedding, clothing, nor fuel, and as the weekly allowance to members of sewing and industrial classes will be

increased to 2*s.* 6*d.*, it is expected that on an average the allowance will be rather above than under 2*s.* per head. The advantages expected from this new scheme are, greater simplicity, and, consequently, less labour to the visitor, a more impartial and more equable distribution of the relief, and an efficient check against imposition. The change is an important one, and it is to be hoped that it will be found to work as its promoters desire it should.

"In concluding this Report it may not be out of place to notice one of the most gratifying features in the system adopted in Blackburn for distributing the relief, which is, that the work is done almost entirely gratuitously. With the exception of a few men selected from the ranks of the unemployed, to assist in distributing the clothing and to get the new scheme into working order, the Relief Committee have not a salaried official in their employment. Up to October last the total expenses of the Committee amounted to some 60*l.*, for stationery and printing."

The effect of the cotton famine has not been so marked in Scotland as in England, for there are no large towns in the former kingdom so entirely dependent upon cotton as in the latter. There are but 168 cotton factories in the whole of Scotland; 96 of these are in Lanarkshire, in the neighbourhood of Glasgow, and 44 in Renfrewshire, and the remainder are scattered about in different counties, there being in reality no nucleus of the cotton trade except at Glasgow. As soon as the factories began to be affected by the want of cotton in Glasgow the matter was taken up and a subscription opened, and at the present time the sum of 14,000*l.* has been subscribed. This fund is purely a local one, and is intended to meet the wants of Glasgow and of its immediate vicinity, and not to supersede the outlying places in the duty of relieving their own distress. Mr. Campbell, the Sub-Inspector, residing at Glasgow, has taken great interest in this matter from the commencement. He is a member of the Executive Committee, and of one of the four District Committees, having superintendence over the whole of Glasgow. He has kindly forwarded to me the report of the Executive Committee, from which some extracts will be interesting as descriptive of the mode of procedure in Glasgow. The Report states:—

"Upon the 3d of September the treasurer and secretary, acting under the instructions of the committee, at their first meeting, held that day, divided the city and immediate neighbourhood into districts, for the purpose of a canvass for subscriptions. Thirty-six such districts were defined and mapped out, and allocated to a large staff of influential gentlemen as collectors. It is due to these gentlemen to add that the canvass for subscriptions was conducted with vigour and success, and somewhat abated only

when it began to be understood that the applications for relief were disproportionately small compared with the amount of the Relief Fund at the committee's disposal.

"The committee next put themselves in communication with similar relief committees in Lancashire, with the view of deriving the benefit of their experience. But Lancashire was found to be exceptional as much in the machinery as in the demand for relief; and the Executive Committee accordingly devised their own measures to meet the circumstances of their trust.

"For the purposes of relief the city and neighbourhood were divided into four districts, to each of which districts sub-committees were appointed.

"These sub-committees were invested by the Executive Committee 'with full power to receive, consider, and dispose of all applications for relief; to arrange as to the best modes in which relief should be granted; to grant such relief in the way and to the amount which they might think proper; to fix their times and places of meeting; to add to their own number, and to name their own convener.' The power of adding to their number has since been largely exercised, and many benevolent gentlemen not here named are actively associated with the district sub-committees in their labours.

"At first the Executive Committee were inclined to indicate a scale of relief per week for each necessitous unemployed person, according to the number of his or her dependants, but the exigencies of the applicants soon appeared so different and indeterminate that, upon reconsideration, it was agreed to entrust the amount as well as the grant of relief to the judgment and discretion of the district sub-committees, who are thus authorized to deal with each individual case on its own merits. The nature of the applicant's usual employment was made the test, and his residence within a sub-committee's territory, and want of employment through the failure of cotton supply, the ground of his or her claim for relief. To enable the district sub-committees to consider and deal with all applications for relief, the following schedule of application was prepared, so as to elicit the necessary information in each case without subjecting the applicants to harsh or unnecessary inquiries:—

"UNEMPLOYED COTTON OPERATIVES' RELIEF FUND.

"Applicants for relief must fill up answers to the following queries:—

Name and address?
Employment?
Age?
Married or single?
If married—family?
Daughters, if any in work?
Sons, if any in work?
Parents, if any in work?

Applicant's last place of work ?
Wages when employed ?
How long entirely unemployed ?
(Applicant's signature.)
Certified by

"Dated 186 ."

"In addition to the district sub-committees, the following special sub-committee was appointed for the unemployed female cotton operatives, whose case might, in the opinion of the sub-committee, require special consideration and provision, viz., Messrs. Peter Hamilton, John Brown, jun. James Watson, George M'Callum, and J. D. Campbell. Mr. Hamilton convener.

"This sub-committee, after considering the subject remitted to them, made the following report and recommendations to the executive.

"'1. That suitable premises for industrial purposes should be forthwith obtained, and that the first of them should be situated in the eastern part of the city. 2. That these premises shall be opened daily from ten o'clock until dusk, for the reception (for industrial occupation) of all females that may be sent and certified as qualified by the district committees. 3. That sewing, knitting, or other suitable employment shall be provided for such females as are qualified for it ; and that instruction be given in such occupations to those who are altogether or partially unfit for them. 4. That, for the attaining of these objects, a qualified forewoman will have to be appointed at a moderate weekly salary, with an assistant or assistants, as may be found necessary.' 5. That a committee of ladies will have to be formed to visit the premises daily, and give their advice and assistance; also, for the purpose, along with such persons as they may select of giving instruction in the arts of sewing, knitting &c., as well as in reading in cases where this is needed. 6. That the employments of the day be varied by readings and otherwise, as may be deemed beneficial. 7. And that a ration of soup and bread be supplied to all who attend regularly, about one o'clock daily. The sub-committee further agreed to recommend that, while one or more set of premises may, as they are needed, be opened and conducted as above suggested, yet, and in addition, efforts be made, either by written or personal communication, with the various factory employers whose works are stopped, in order to induce them to provide each for their own workers industrial and educational employment, in premises connected with their own works, and superintended by persons appointed by themselves. The sub-committee think that it must be evident to all who consider the matter that while the more general plan now proposed must, if adopted, be productive of much good, yet that the more local system suggested would have many and superior advantages. Should the Executive Committee approve generally of the recommendations and plans stated above, the sub-committee have only farther to state their willingness to

endeavour to carry them into effect to the best of their ability, under the auspices, and with the support, of the Executive Committee.'

"The Executive Committees approving of the report and recommendations generally, cordially accepted of the sub-committee's services, remitting to the district sub-committees to co-operate with them in concerting such measures as might be deemed expedient and necessary to attain the object for which the sub-committee on female operatives was appointed.

"An industrial school has since been opened by this sub-committee, in the Mechanics' Hall, Calton. Females upon the rolls of the various district, and recommended by the district committees, are there received and furnished with shelter, occupation, and a wholesome meal for the day. Sewing and knitting are taught, and lessons in reading and writing given by ladies who have benevolently tendered their services to the committee. The school is under a superintendent, and supplied with two forewomen. Upwards of 200 females soon availed themselves of the advantages which this industrial school presents. Messrs. Bartholomew & Co., Dunlop & Sons, and the Mile-End Spinning Co., the committee are happy to report, having liberally responded to the suggestions of the sub-committee on females, by opening local industrial schools in their mills for their own workers out of employment. The general industrial school in the Mechanics' Hall has thus been relieved by Messes. Bartholomew to the number of 46, Messrs. Dunlop & Sons have drafted off 30, and the Mile-End Spinning Co. 27, and the capacity of the central school for general good has been increased in proportion. At present this school contains 120. The Executive Committee earnestly hope that, as winter advances and the distress deepens, other millowners will contribute their aid in this laudable effort for the welfare of unemployed females."

These sub-committees have been in active operation, and have distributed nearly 3,000*l.* of the fund, according to the principles laid down in the Report.* Mr. Campbell explains as follows (27th November) the manner in which the sub-committees work:—

"The distress in Glasgow, though severe, is quite manageable in amount, so that we shall require no assistance from other parts of the country. The Scotch poor law does not provide for the relief of able-bodied paupers, and though this regulation is sometimes infringed, no relief is now being given from the rates to any of the cotten workers out of employment, who are thus thrown on the subscribed fund. You will see our general system from the report of the Executive Committee. The sub-

* The calls upon the fund have increased since the Report was written to about 500*l.* per week.

committees proceed as follows, at least in the eastern district, with which alone I am acquainted:—The east end is divided into small districts to which visitors are appointed. Each applicant for relief receives a schedule, a blank form of which I enclose, which is forwarded when filled up to the district visitor who inquires personally into the case, and endorses his remarks on the schedule. It is then sent to a small sub-committee, who decide on the amount to be paid, and pay it over weekly to the applicant. The work done by this sub-committee has been very great indeed, and has been thrown almost entirely on Mr. G. Grant, a partner in one of the largest cotton mills in Glasgow, and one of the city magistrates, whose services have been invaluable from the first appointment of the committee. All relief has been given in money up to the present time, except what has been provided through the sewing school mentioned in the report, but it is in contemplation to give a portion of the relief in kind in future. There is no fixed rate of relief, but a woman without any one dependent on her gets about 2*s.* 6*d.* weekly, and a further sum is given where there is a family to support. Men receive more, but cannot add anything by their earnings, as the women do, at the sewing class.

"There is great distress in some country places in the neighbourhood, such as Duntocher, Lochwinnoch, and Barrhead, and no proper system of relief has as yet been organized. The Glasgow subscription was raised for Glasgow alone on the supposition that Renfrewshire and Dumbartonshire would provide for their own necessities, but it was to-day resolved to devote a portion to these districts. This is however to be contingent on some local effort being made, and I hope that something effectual may soon be done. In the case of Duntocher, which is the most distresst place, I was glad to hear to-day that an arrangement had been made by which 1,000*l.* would be subscribed from the estate of the late Mr. Dunn, and that the people had been provided for up to this time.

"The conduct of the workpeople cannot be spoken of too highly. From my personal experience as a district visitor, corroborated by that of all my colleagues, I can testify that they have in general shown the greatest reluctance to apply for relief till driven to it by necessity. The manager of a mill who has long taken a more than usual interest in his workpeople, tells me that he has always had a high opinion of the factory workers, but did not know till now what they really were. As our system secures us from having anything to do with any but the real working classes, we meet with none of the falsehood and trickery which we should have to contend with in dealing with ordinary paupers, and I have always found those whom I have visited straightforward and truthful in the account which they gave of their position. At the sewing school, which I have frequently visited, the behaviour of all who attend is excellent, they are easily managed and attentive to their work.

"I am glad to say that no sectarian question has as yet been raised. Some of the Roman Catholics at the sewing school declined to eat soup on Friday, though they got nothing else but dry bread, but on application to the bishop, he promised to grant them a dispensation for the future."

In a previous communication (6th November) Mr. Campbell wrote as follows:—

"Of course most of the mills are working short time. Messrs. ———'s two mills are the only large spinning mills which I know to be on full time; but several of the weaving mills are busy, especially those that are in the coloured, fancy, or mixt trades. The distress of the workers, though of course very severe in particular instances, is as yet by no means wide-spread. Duntocher is the only place where, on a small scale, the distress approaches what we hear of in Lancashire, as the whole village was entirely dependent on the cotton mills, which are now stopt. The proprietor of the mills died not long since, and as some difficulties have arisen as to the succession, the funds are so tied up that little is being done for the people.*

"Many of the manufacturers here have subscribed pretty largely to the fund which has been raised for those out of employment, but, with some exceptions, they are not taking any special charge of their own people. Messrs. ———, however, whose mill you visited with me, are behaving most liberally. Their mill is now entirely stopped, but they are paying their workers three days' wages weekly, and I believe they are doing the same at ———,† where they have another mill. Messrs. ———, who have just closed their mill, are also supporting their workpeople, the amount expended being about two days' wages per week for all employed. They are also giving an opportunity for industrial employment in a vacant room in their mill, and though the system is not yet fully organized, it promises to be very useful. Messrs. ———, who are working four days in the week, have started an industrial school in the mill, which is carried on in one of the spinning flats, and is working extremely well, as the managing partner, Mr. ———, takes a great personal interest in it. I hear that Messrs. ——— also intend organizing some scheme for the benefit of their workpeople, but I am not acquainted with

* It will be seen from Mr. Campbell's letter of the 27th November that Duntocher is now likely to be properly provided for.

† Mr. Walker, the Sub-Inspector for the east of Scotland, has informed me that a similar arrangement exists at this mill. At both places, in which excellent schools are established, the children attend regularly. When I visited Messrs. ———'s mill with Mr. Campbell they were working two days a week, and I was greatly interested with the manner in which the firm were then assisting their hands. The children, although making only two days a week, were attending school *all* day, when not at the mill, an arrangement which it is very difficult to induce manufacturers to insist upon when working short time. The general practice is for the children to consider that short time at the mill means also short time at the school.—A. R.

the particulars, and I do not doubt that other millowners will follow their example if the distress increases greatly."

It will be seen from the Report of the Executive Committee that, according to Mr. Campbell's anticipations, several manufacturers have established classes upon their premises, or are otherwise relieving their own workpeople ; and I trust that the hope expressed by Mr. Campbell in his letter of the 27th November, "That we (in Glasgow) shall require no "assistance from other parts of the country," will be happily realized, not only as proof of the distress being mitigated in extent and severity there, but as, in such case the subscriptions from other parts of Scotland may reach the suffering districts in Lancashire and Cheshire.

The various modes of relief throughout the country have now been organized into well-arranged systems, and are working well. The sums which have been subscribed, and which are now in course of collection, and the efforts such as those above described, will carry the operatives through the winter. The wants of the operatives are exceedingly well attended to; the distribution of clothing, bedding, &c. has been successfully managed; it has been abundant as well as suitable; and it may now be hopefully anticipated that the worst has past. In some districts the mills are beginning to work a little longer time, and in others mills are being re-opened; but as the spring advances and the quantity of cotton coming into the country becomes better ascertained, a marked diminution will be felt in the number of operatives out of work.

It is unnecessary to dwell upon the bearing of the operatives in the afflicting circumstances in which they have been placed. The operatives of the cotton manufacturing towns are a highly intelligent class of people. The extraordinary increase of manufactures, and the want of labour to meet the demand, had rendered them keen enough to the value of their own services; their wages were consequently high, and more than enough to provide for all the necessaries of life; but, as a class, they have not been provident. The large wages were spent in what may really be called unnecessary extravagance. Their clothing, and their food especially, were of a better kind than those of operatives in other districts: their relaxations were more exciting, and consequently more expensive. They are generally well up in the topics of the day, and fond of discussing social and political questions. This feverishness of temperament may be somewhat due to the exciting nature of their occupation. In a cotton factory human arm and iron machine are alike kept at the stretch of their powers; the atmosphere is heated, there is the loud humming whirr of

479

heavy machinery revolving, the clattering of the shuttles flying to and fro, and the mind is thus kept in a high state of excitability. When work is over, the mind does not return at once to a quiescent condition, for the appetite which was created in the mill craves to be satisfied also in their homes. The manner in which a people so circumstanced have borne the sudden annihilation of their means of existence has certainly no small claim to our respect. But in all these lamentable sufferings one great good at least is even now showing itself,—the mutual appreciation of each other by masters and operatives. The masters have seen the quiet, patient, and honourable conduct of the workpeople; they have witnessed these well-paid and well-to-do operatives suddenly reduced to the bare necessaries of life, which they receive from the hands of others in a calm and proper spirit; and the operatives know the sacrifices made by their masters to keep them from parish relief. The Sub-Inspectors frequently refer to the thankful spirit evinced by their operatives: Mr. Campbell, in his Report, quotes the opinion of a person well qualified to judge, "That he did not know till "now what they really were:" Mr. Oram has frequently referred to this subject as one which has made a great impression.

The following original song has been placed in my hands, and I have inserted it here, for it describes in the operatives' own language what their masters are doing for them; it expresses also their appreciation of the gifts they receive, their sense of the sufficiency of the relief, and their cheerfulness in waiting for better times:—

OUR FACTORY SCHOOL,

BY ELIJAH MOSS.

TUNE—"*Artichokes and Cauliflowers.*"

You factory folks of Lancashire, a song we'll sing to you,
Of a school now formed at Higher Hurst, and every word is true.
Our masters are determined to care well for their hands,
If they will only come to school, and there obey commands.

CHORUS.

Then old and young attend the school, your teachers there obey,
There's military exercise, and military pay.

Our mules and looms have now ceased work, the Yankees are the cause.
But we will let them fight it out and stand by English laws;
No recognizing shall take place, until the war is o'er;
Our wants are now attended to, we cannot ask for more.

Potatoes, ham, and bacon are now to us being sold,
With comforts such as these, we have no fear of winter cold;
Every one seems hearty glad, and sings with joyous glee,
For men and masters now do meet in love and unity.

Amongst our scholars there are some whose age is past three-score,
Who have for learning, wages, which they never had before;
The pencils, slates, and copybooks are free for us to use,
And every morning on each desk is laid the daily news.

A system of good order rules supreme from morn till night;
There's grammar and arithmetic, and nearly all can write;
Reciting too, with moral songs, to suit the gay or brave,
And often do we close our school with singing "Sailor's Grave."

Now old and young forget your cares, and join in singing praise,
The time is not far distant when we shall have better days;
Then comforts soon to every one, with joy we shall abound,
Contentment, peace, and plenty may we have on British ground."

I have the honour to be,
Sir,
Your very obedient humble servant,
ALEX^R REDGRAVE.

To the Right Hon.
Sir George Grey, Bart., M.P.,
&c. &c &c.

Appendix No. 1.

Return of Prosecutions for Offences against the Factories Regulation Acts in the District of Alexander Redgrave, Esq., during the Six Months ended the 31st October 1862.

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	Remarks.
			Informations laid by Mr. Ewings.	£ s. d.	£ s. d.	
1862. Aug. 25.	John Holgate, Cotton Manufacturer, Waddington.	Bolton by Bowland; before J. G. Parker, Esq., and W. H. Robinson, Esq.	Employing a child without being registered -	2 10 0	0 10 0	
"	" "	" "	Employing the same child more than seven hours a day.	- -	0 10 0	Withdrawn on payment of costs.
"	" "	" "	Also without a surgical certificate - - -			
"	" "	" "	Employing a young person without being registered.	2 10 0	0 10 0	
"	" "	" "	Employing the same boy without a surgical certificate.	- -	0 6 0	Withdrawn on payment of costs.
			Informations laid by Mr. Patrick.			
Oct. 4.	William Barlow and Sons, Cotton Manufacturers, Hawthorn Mill, Rawtenstall.	James Worsley, H. G. Slater, Richard Wild, Richard Ashworth, John Aitkin, and Rev. J. L. Mordaque; Haslingden.	Employing ten young persons and children before 6 o'clock in the morning.	- -	4 18 0	One case dismissed by the magistrates; the remainder withdrawn.
"	John Pickering, overlooker, in the employ of William Barlow and Sons.	" "	Obstructing Sub-Inspector in the discharge of his duty.	- -	0 9 6	This case was also dismissed by the magistrates.

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
				£ s. d.	£ s. d.	
			Informations laid by Mr. Rickards.			
July 31 adjourned to Aug. 2.	Messrs. Hardwick and Hartley, Woollen Mill, Armley.	C. Chadwick and J. Ellershaw, Esqs., at Town Hall, Leeds.	Employing one woman during the dinner hour -	1 0 0	0 11 6	
Aug. 8	W. S. Boocock, Worsted Mill, Haworth.	J. Brigg, J. G. Sugden, and S. B. Clapham, Esqs.; Court House, Keighley.	Employing one woman during the dinner hour -	3 0 0	1 0 0	
Oct. 29	Tees Woollen Mill, Barnardcastle.	J. Grey, M. Headlam, and T. S. Edges, Esqrs.; Barnardcastle.	Employing four women after 2 p.m. on Saturday.	4 0 0	1 7 0	
			Informations laid by Mr. Whymper.			
May 1	Armitage Brothers, Cotton Spinners, Woodhouse Mill, Huddersfield.	T. P. Crosland, Esq.; John Brook, Esq.; Huddersfield.	Employing two children without names on register.	2 0 0	0 12 0	
"	" "	" "	Employing two children without surgeon's certificate.	2 0 0	0 12 0	
"	H. Crowther and Sons, Woollen Manufacturers, Lockwood.	" "	Employing a child without having her name registered.	1 0 0	0 6 0	
"	" "	" "	Employing a child without surgeon's certificate -	1 0 0	0 6 0	
"	" "	" "	Employing a child without school certificate -	1 0 0	0 6 0	
Oct. 2	Firth Ellam, Woollen Manufacturer, Temple Mill, Lindley.	T. P. Crosland, Esq., Lewis Starkey, Esq.; Huddersfield.	Employing four young persons without surgeon's certificate.	4 0 0	1 4 0	
"	" "	" "	Employing four young persons without having their names registered.	- -	1 0 0	Informations withdrawn on payment of expenses.
"	G. Beaumont, Woollen Manufacturer, Spring Mill, Milnsbridge.	" "	Employing two children without surgeon's certificate.	2 0 0	0 12 0	

Oct. 2	G. Beaumont, Woollen Manufacturer, Spring Mill, Milnsbridge.	T. P. Crosland, Esq., Lewis Starkey, Esq.; Huddersfield.	Employing two children without their names being registered.	- -	0 10 0	Informations withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing two children without school certificate	- -	0 10 0	Informations withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing two children before 12 at noon and after 1 p.m. of the same day.	- -	0 10 0	Informations withdrawn on payment of costs.
Oct. 11	Joseph Sykes, Woollen Manufacturer, Field Gate, Huddersfield.	Geo. Armitage, Esq., T. P. Crosland, Esq.; Huddersfield.	Employing a young person without her name being registered.	3 0 0	0 6 0	
,,	,, ,,	,, ,,	Employing a young person without surgeon's certificate.	- -	0 5 0	Information withdrawn on payment of costs.
,,	E. T. Monk and Co., Aspley Silk Mill, Huddersfield.	,, ,,	Employing a child without having her name registered.	1 0 0	0 6 0	
,,	,, ,,	,, ,,	Employing a child without surgeon's certificate -	- -	0 5 0	Information withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing a child without school certificate -	- -	0 5 0	,, ,,
,,	,, ,,	,, ,,	Employing a child before and after 1 p.m. of the same day.	- -	0 5 0	,, ,,
,,	John Whiteley, Woollen Finisher, Lockwood, Huddersfield.	,, ,,	Employing a child without surgeon's certificate -	1 0 0	0 8 0	
,,	,, ,,	,, ,,	Employing a child without having her name registered.	- -	0 5 0	Information withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing a child without school certificate -	- -	0 5 0	,, ,,
,,	,, ,,	,, ,,	Employing a child before 12 at noon and after 1 p.m. of the same day.	- -	0 5 0	,, ,,
			Informations laid by Mr. Henderson.			
May 8	I. and J. Place, Cotton Manufacturers, Hoddlesden, Over Darwen.	Over Darwen; Rev. Philip Graham, Rev. E. C. Montrion, and Richard Eccles, Esq.	Employing five women and young persons after 2 o'clock on Saturday.	15 0 0	3 15 0	Highest penalty in each case.
,,	,, ,,	,, ,,	Employing 20 women, young persons, and children after 2 o'clock on Saturday.	- -	8 15 0	Withdrawn on payment of costs.
,,	,, ,,	,, ,,	Working five children forenoon and afternoon of same day.	1 0 0	1 12 0	Four cases withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing a child without a school certificate -	- -	0 8 0	Withdrawn on payment of costs.

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
				£ s. d.	£ s. d.	
May 8	I. and J. Place, Cotton Manufacturers, Hoddlesden, Over Darwen.	Over Darwen; Rev. Philip Graham, Rev. E. C. Montrion, and Richard Eccles, Esq.	Employing three young persons without having their names registered.	2 0 0	1 8 6	Two cases withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing the same young persons without a surgical certificate.	2 0 0	1 1 0	,, ,,
,,	George Leach, operative, Hoddlesden.	,, ,,	Allowing his child to work forenoon and afternoon of same day.	0 5 0	0 10 0	
,,	,, ,,	,, ,,	Neglecting to send his child to school - -	0 5 0	0 10 0	
			Informations laid by Mr. Measor.			
May 7	William Greenwood, Woollen Manufacturer, Rawfold's Mill, Liversedge.	J. B. Greenwood and John Hague, Esqs.; Court House, Dewsbury.	Employing eight young persons without registering their names.	8 0 0	2 5 0	Four cases withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing the same without surgical certificates	8 0 0	2 4 0	Four cases withdrawn on payment of costs.
,,	James Wilson and Son, Woollen Mill, Liversedge.	,, ,,	Employing a young person without registering his name.	2 0 0	0 7 0	
,,	,, ,,	,, ,,	Employing the same without surgical certificate -	2 0 0	0 6 0	
May 12	George Green, Woollen Mill, Battye Ford, Kirkheaton.	George Armitage and Lewis R. Starkey, Esqs.; Court House, Huddersfield.	Employing four females after 6 p.m. - - -	1 0 0	1 9 0	Three cases withdrawn on payment of costs.
,,	,, ,,	,, ,,	Not hanging up abstract of the Factory Acts -	2 0 0	0 6 0	
,,	,, ,,	,, ,,	Not keeping a register of young persons - -	- -	0 5 0	Withdrawn on payment of costs.
May 29	,, ,,	,, ,,	Employing a young person without registering his name.	- -	0 7 0	,, ,,
,,	,, ,,	,, ,,	Employing the same without a surgical certificate	2 0 0	0 6 0	

„ 12	William and Booth Denton, Woollen Mill, Battye Ford, Kirkheaton.	„ „	Employing four females after 6 p.m. - -	1 0 0	1 9 0	Three cases withdrawn on payment of costs.
„	„ „	„ „	Not hanging up an abstract of the Factory Acts -	2 0 0	0 6 0	
„	„ „	„ „	Not keeping a register of young persons - -	- -	0 5 0	Withdrawn on payment of costs.
July 30	Oliver Mitchell, Woollen Mill, Horbury Bridge.	Edward Tew, John Barff, William H. Leatham, and G. H. Westerman, Esqs.; Court House, Wakefield.	Employing three young persons after 6 p.m. -	2 0 0	0 18 0	One case withdrawn.
„	„ „	„ „	Employing two young persons without registering their names.	- -	- -	Withdrawn on payment of costs.
„	„ „	„ „	Neglecting to limewash the mill - - -	3 0 0	0 10 0	
„	George Harrup, Woollen Mill, Horbury Bridge Mill.	„ „	Employing four young persons after 6 p.m. -	4 0 0	1 12 0	
„	„ „	„ „	Employing a young person without surgical certificate.	2 0 0	0 8 0	
„	„ „	„ „	Neglecting to limewash his part of the mill -	- -	- -	Withdrawn on payment of costs.
„ 5	Messrs. Hudson and Wilkinson, Worsted Manufacturers, Duckett's Mill, Bradford.	L. W. Wickham, William Marjatroyd, T. Horsfall, and John Farrer, Esqs.; Court House, Bradford.	Neglecting to give notice of an accident to the certifying surgeon.	2 0 0	2 11 0	
Sept. 9	James Wilson and Son, Liversedge.	J. B. Greenwood and Charles Wheatley, Esqs., Court House, Dewsbury.	Employing two young persons without certificates from the certifying surgeon.	6 0 0	2 5 0	This firm was convicted on a like charge on the 7th May last.

Appendix No. 2.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M&F.
Causing death	1	2	2	2	3	–	6	4	10
Amputation of right hand or arm	3	1	3	1	–	–	6	2	8
Amputation of left hand or arm	1	1	1	3	–	–	2	4	6
Amputation of part of right hand	14	20	9	11	3	4	26	35	61
Amputation of part of left hand	13	10	9	13	4	3	26	26	52
Amputation of any part of leg or foot	2	–	1	1	–	–	3	1	4
Fracture of limbs and bones of trunk	14	7	7	3	5	1	26	11	37
Fracture of hand or foot	17	18	14	17	13	9	44	44	88
Injuries to head and face	5	16	15	9	3	2	23	27	50
Lacerations, contusions, and other injuries not enumerated above	138	125	108	137	52	24	298	286	584
Total	208	200	169	197	83	43	460	440	900

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M&F.
Causing death	1	–	–	–	–	–	1	–	1
Amputation of part of right hand	–	–	1	–	–	–	1	–	1
Fracture of limbs and bones of trunk	7	4	2	3	3	1	12	8	20
Injuries to head and face	3	1	7	–	2	–	12	1	13
Lacerations, contusions, and other injuries not enumerated above	19	8	8	6	3	–	30	14	44
Total	30	13	18	9	8	1	56	23	79

REPORT of ROBERT BAKER Esq., Inspector of Factories, for the Six Months ended the 31st of October 1862.

Factory Inspectors' Office,
Whitehall, 16th Dec. 1862.

SIR,

I HAVE the honour to report to you that during the six months ended the 31st of October last I have visited factories, schools, printworks, laceworks, and bleaching and dyeing works in the counties of Lancaster, Chester, Warwick, Dorset, Devon, Somerset, Wilts, in South Wales and in Ireland. The total number of accidents which it is my duty to record amounts to 321, of which three were fatal, altogether a very much smaller number than usual, but I regret to think that this circumstance arises more from the want of employment than from any additional carefulness on the part of the workers.

Having had several communications made to me on a system of overworking the hands in Belfast, I directed Mr. Sub-Inspector Haydon, in Mr. Darkin's absence from ill health, to endeavour to discover whether there was truth in the allegations which they contained. He found in some of the factories, and particularly in those mentioned in the communications, various infractions of the law, for which, the several parties have been prosecuted and convicted. In other respects the law has been well obeyed.

In my Report for October 1861 I took the liberty of suggesting the propriety of an Act of Parliament which should repeal the Printworks Act and the Bleachworks Act after a certain lapse of time, and gradually place all the various textile works which are now under legislative restrictions under the Factory Acts, so as to render the law uniform and less difficult to be understood and carried out. Since then the Laceworks Act has come into operation, and on the 1st of January next the Open-air Bleachworks Act will be added to the number of Acts under our administration. We shall then have five Acts of Parliament, each having the same object, but each with different provisions and interpretations, five abstracts hanging on the walls of these different works and four sets of books to be kept by the occupiers. I am quite aware that, in the commencement it may be well to give time for the necessary re-arrangements and preparation for the closer restrictions which such works are eventually to come under; but that they must all come under the provisions of the Factory Act at last, seems to me a certain result; and the question of when they are to do so, is only one of convenience. Now, the Factory Acts which were a compromise between the employers and em-

ployed, have long been in full and satisfactory operation; satisfactory alike to both parties. The Printworks Act is admitted to be a failure, both with reference to its educational and protective provisions. The Bleach and Dye Works Act has also not only failed to afford that protection to the workers which it appears to offer, but contains a clause, the tendency of which is to make every bleacher and dyer jealous of his neighbour; and is also in many parts of it very difficult of interpretation: and the Open-air Bleachworks Act, which should come into operation on the 1st of January next, has apparently been so worded, that unless persons are detected working after 8 o'clock at night they appear to come under no protective provisions at all, and even if they do so work, the mode of proof is so doubtful that a conviction can scarcely follow. It is for these reasons that I again respectfully bring this matter under your consideration.

That there are objections to it I admit, but I think with due time for preparation for the change to the Factory Act, these objections fail to present any real weight; and as I will assume that a uniform period of labour and for meals for every industrial neighbourhood, not only for the sake of domestic arrangements, but as affording opportunities for night school education, commends itself *à priori* to every considerate mind, I will proceed to show you, as far as my experience enables me, what these objections are, and how they are, as I think, overcome.

On the present unsatisfactory nature of the Bleaching Works Act, I will produce the testimony, by and bye, of those who are under its operation; of its extreme effects we have as yet had no means of judging correctly, "the times having been "so bad with them," to use a familiar phrase, in consequence of the cotton panic, that its provisions have not all been fully tried. Many firms have been working from 6 a.m. to 6 p.m. only, and are content with it; many again have recorded their lost time, with a view to its recovery: but over the whole trade there appears to me to be a great difference of opinion as to what they shall eventually do in the way of making up lost time when occasion may require it. But this very uncertainty makes the law exceedingly disappointing to the operatives and unsatisfactory to the employers. It disappoints the workpeople by lengthening or varying their hours of work beyond the limits of those of other members of their families or of their friends, or beyond what they themselves consider reasonable or are conventional, preventing any social arrangement for the enjoyment of their meals together, or for mental culture in the evening; and it is unsatisfactory to the employers because it creates a feeling of the liability to unfair practices amongst them, and that whilst some are desirous of acting honestly by their workpeople and by the law, others

will overwork the one and evade the other. For example, with respect to the workpeople, as the law stands, a master may say that "as he cannot obtain his goods to bleach till 8 " o'clock in the morning, he has had a 'fluctuation in trade,' " and therefore he will commence at that hour and work till " 8 p.m.;" another may do the same thing on alternate days or alternate weeks or months ; a third may apply the same rule to the stoppage of his works or part of his works in the middle of the day, and delay his workpeople in parts accordingly. The workers have thus no certainty of their own time, and can make no use of it with regularity. With respect to the masters, there are so many ways in which any one of them may act dishonestly by his neighbour, if he chooses to do so, that it cannot fail to be a source of disquietude and dissatisfaction. I need not, however, dwell further on this topic. I will, therefore, content myself with quoting extracts from two letters, the one from a bleacher whose character stands so deservedly high amongst his fellows, that his opinion would govern nearly the whole of them; and the other, from a working man whose opinion I have had fully corroborated, and these will show you, better than any words of mine, the sentiments of both sides.

The master writes, in October last, "Our trade continues " in a truly miserable state, I wish you would try to get us " an Act similar to the one shadowed forth in your Report " of last year. I am confident the present one wont work " satisfactorily either to you or us."

The workman writes, in August last, "There is consider- " able anxiety on the part of individuals interested in the " short time measure for bleachworks, as to the conduct of " some of the masters for working females after the time " specified, viz., 6 o'clock. This has been done at ———, " three nights this week, and will in all probability be the " case again to-night. It is done to fetch time lost by the " works being stopped on the Friday and Saturday for the " two past weeks. I was informed by a female employed " there, that it was 7.30 when they got out last night, and " they were there at 6 o'clock in the morning. It has been " rumoured that all this is done in order to test what can be " done. I am, sir, one who has struggled for this great " boon, and I should be happy to see the law enforced when- " ever it is likely to be infringed upon."

Now the "great boon" referred to by this working man is the privilege of feeling that his time is his own after 2 p.m. on Saturdays and after 6 p.m. on other days, which the people working in factories enjoy, which the Bleachworks Act appears to give, but does not, and which is a promise thus "broken to the hope" at the very moment of its anticipated fruition. The Bleachers, however, have some other

objections to be placed under the Factory Acts. They point to part of their processes being chemical processes, and that they cannot, therefore, be as regular as purely mechanical works are; that it is a trade of sudden demands for the completion of goods for immediate shipment; and that there is no necessity for the restrictions of the Factory Act for them, by reason of the active nature of their employment, which does not limit the workers to one room, nor to one position for so many hours as factory work does. But multiplied appliances has and can overcome the first two of these objections, and they are thus reduced to a question of outlay. I know more than one instance of extensive bleachworks where the hours of labour and meals are kept with great regularity: and if one, then there is no doubt but that all might be. With reference to the last of these objections it must succumb to the broad principle of the rights of labour; for whatever may be the comforts and conveniences which may be afforded to a worker in his workshop, there is a time when the master's right in the workman's labour ceases and his time becomes his own, even if there were no exhaustion in the question. But that there is an exhaustion even in idleness many persons are aware; and there is an amount of exhaustion in the competition of labour with machinery much greater than will be readily imagined; for it requires an exactitude which draws largely upon the vital energy, especially of young workers, and which becomes seriously injurious to them when it is unusually prolonged.

Of all the bleachworks in my district I am not aware of any which could not be enlarged for want of room, and there are very few, if any, which might not be extended for lack of capital. Upon the average, they each employ 80 persons. Whatever difficulties, therefore, might arise in putting the Factory Act in operation in them, they could only be found with the very smallest bleachers; and as of the whole number of persons employed more than half are men above the age of 18 years over whom the law exercises no authority, and who are therefore at liberty to work night and day, I have no doubt whatever that, if it was immediately determined factory hours should apply to bleachworks, wherever there was the amount of business to be done the appliances would be obtained, and where they could not be, and long hours became necessary, that the labour of men would be substituted without difficulty for that of women and children. With respect to the "loss of trade" by the non-completion of shipping orders in time, I remember that this was the pet argument of the factory masters in 1832 and 1833. Nothing that can be advanced now on this subject could have half the force that it had then, before steam had halved all distances and established new regulations for transit. It quite failed at that time of

proof when put to the test, and again it will certainly fail should it have to be tried.

But the argument for the exclusive employment of men after 6 p.m. applies still more forcibly to bleaching by the open-air process. I have examined again and again the managers of such works in Ireland and elsewhere; men accustomed to think for their masters as well as for themselves, and I have met with an almost unvarying reply, "that "so long as the labour of men above the age of 18 years is "not interfered with, there is nothing in the work itself, or "in any part of it, to require the attendance of women and "children longer than from six to six."

I showed in my Report for 1861 that, so far as I had then ascertained, there were 137 open-air bleaching, dyeing, and finishing works in Ireland, and of these, 90 were finishing works in which men and boys were mainly employed. In 145 factories, and 87 firms, the total number of persons employed at present is as follows:—

Men.	Women.	Boys.	Girls.
3,425	835	611	453

The men and boys are largely employed in bleaching, beetling, dyeing, and finishing. Most, if not all, work till late at night, and many of the men all night. The plea for employing boys of 12 years old and upwards in the beetling mills all night, and from night to night till 12 p.m. from 5 a.m., is, that to "produce skilled men you must train boys." But under this system of night work their health is gradually undermined, and which it is impossible not to notice from their appearance. If a boy cannot become a skilled workman in time, by being employed from 6 to 6, no night work extra will make him so, and nothing can justify the long hours of labour to which these boys are at times subjected. The women and girls are employed in various operations, but principally in the stoves, in high temperatures, so high as to necessitate their having intervals during the day for "cooling," than which there cannot be a more necessary interval, nor a more expressive term. As a rule, and apart from the stoves, the occupations of open-air bleachworks are not unhealthy; but their not being so is no reason why the people should work longer hours than is conventional. With adult male labour nobody desires to interfere. Men have to work and live by it, and bring up and educate their families, and with them every exertion is voluntary; but with women and children it is different, and especially with those who work in such high temperatures, as the following evidence illustrates:—

"Fifteen girls' work in the stoves; temperature, 96. We work from 6 a.m. to 7 p.m., with an hour and a half for meals,

When it is very hot, we go out to cool. We are paid by the piece. We can stove 100 pieces in the day of 61 yards."

"The hands come at 6 a.m. winter and summer. Sometimes in the winter at 8 a.m., and leave off at 2 on Saturdays. During both seasons we should work from 6 to 6, if we were there. In the winter we sometimes work long hours. At 11 and 4 we have 20 minutes to go out for cooling. Our bleachworks are the same in every respect as any other. There is no necessity whatever in any bleachworks for women and children to work after 6 p.m. We have five stoves. Temperature is 92 ; and there are 34 females in."

"Commence work at 7.30, having breakfasted. Quit work at 1 to 2. Recommence at 2, and leave at 6, but, if busy, work till 9 or 10. On Saturdays work till 4, or later, if necessary. No stated times for cooling ; come out when they please. Overlooker admits that there is no reason why work should not cease every day at 6 p.m. If more drying power were provided, all extra work could be done within factory hours."

"Fifteen girls in stoves. Heat from 80 to 90 for linens, and 100 and upwards for cambrics. Twelve girls ironing and doing up in a small room, about 10 feet square, in the centre of which is a close stove. The girls stand round the stove, which throws out a terrific heat, and dries the cambrics rapidly for the ironers. The hours of work for these hands is unlimited. If busy, they work till 9 or 12 at night for successive nights. Nominal hours of work from 6 to 6, with two hours for cooling."

I add the following answers to queries put by me to a highly intelligent medical man practising in a bleaching district, detailing the effects of stove labour in concise and instructive terms.

"What is the ordinary temperature of the stoves?

"Between 90 and 95 degrees of Fahrenheit. It may get as high as 100, but that temperature is considered too high for the finishing process.

"Give the number of females generally employed in the stoves between 13 and 18 years of age and above 18 ?

"In ——— bleachworks :—

Under 13	6
Between 13 and 18	85
Above 18	260

"Give the average hours of continuous work during what is called full time ?

"The usual hours of work are from 5.30 a.m. to 6 p m. (two hours being allowed for meal times and cooling) for five days in the week, and from 5 a.m. to 2 p.m. on Saturdays. When orders are pressing, which is frequently the case, the workers are employed as late as 8.30 p.m.

"What are the hours for meals ?

"One hour for breakfast and one for dinner.

"What hours are permitted the females for cooling ?

"No special hours are allowed, but if the temperature gets too

high, or the workers' hands get soiled from perspiration, they are allowed to go out for a few minutes. This is seldom necessary.

"What are the hours of work on Saturday afternoon?

"The day's work terminates on Saturdays at 2 p.m.

"What are the physical effects of the labour in stoves?

"The high temperature and want of proper ventilation in the stove-rooms must produce a very prejudicial effect on the workers. My experience (which is considerable) in treating the diseases of stove workers compels me to express the opinion that their sanitary condition is by no means so high as that of the operatives in a spinning factory. The diseases most observable amongst them are phthisis, bronchitis, irregularity of uterine functions, hysteria in its most aggravated forms, and rheumatism. All of these, I believe, are either directly or indirectly induced by the impure overheated air of the apartments in which the hands are employed, and the want of sufficient comfortable clothing to protect them from the cold damp atmosphere in winter when going to their homes."

I can sum up in a few words the result of my own as well as of Mr. Haydon's inquiries, after a careful visitation of numerous open-air bleachworks in Ireland. We find among the men a very general desire that their hours of labour, as well as those of females and boys, should be shortened. Factory hours appear to be thought very fair hours for bleachworks. Night work among the men is very general. Long continued stove labour is very prejudicial to the health of the females, and, as I said before, remembering that the Factory Acts do not interfere with men, there is not the smallest reason in the world why the women and children in bleachworks should not be protected in like manner as they are in factories; for, to use the words of a sensible bleacher, of whom I asked an opinion as to the effect of legal restrictions for bleachworks, "Protracted hours of labour are "seldom profitable, and if all are made alike, the results "will be equally operative."

The Printworks Act provides that no child under eight years of age shall be employed, and that no child shall be employed in the night; but night is interpreted to be that part of the twenty-four hours between 10 o'clock of one night and 6 o'clock the next morning. Provided, therefore, a child working in a printwork has attended school in every day for five hours, it may be employed till 10 o'clock at night, and without any provision for its meal times. And if we consider that a child of eight years old may have to rise in the morning at seven to enable it to breakfast and be at work at half-past eight, then go to school at half-past ten, and remain there, less the dinner hour, till five, finally return to the printwork and labour till ten, it would not only be humane but it would be wise, to place all children so working under the provisions of half a day's labour and half a day's education.

With respect to the Lace Act, all the workers in lace mills who would be affected by the Factory Acts, except boys between 16 and 18 years of age, are as effectually under their provisions as if they had been so originally. I have had no difficulty in placing the few mills in my district under the law. In England I have only six such factories, and they employ, 397 men, 320 women, 136 boys, 221 girls, 146 male and 58 female children: total 1,278.

In Ireland there are three lace factories of good size, and in the Isle of Wight, one. These do not, however, employ steam, water, or other mechanical motive power, and in consequence are not under the law. Notwithstanding, the hours of work therein do not exceed ten per day, with an hour and three-quarters for meals.

Of the whole number of children in the lace mills submitted to medical examination under the law, 294 are passed as scholars, who were previously working full time. There were but two or three to discharge as being under eight years. There were a few cases of incipient deformity and of strumous diathesis amongst them, arising more from the want of due nourishment than from excessive labour; but upon the whole the sanitary condition of the workers was found to be more favourable than might have been anticipated. In one of these large lace mills there is a daily religious service, similar to that which I have more than once mentioned as existing in Nottingham, and with equally good effects, the time for which the employer allows without deduction from the wages.

As to the general operation of the Lace Act, so far as it has been tried, I am able to lay before you the following answers to my inquiries:—

From No. 1. "The application of the Factory Act to lace factories has not caused us any inconvenience, as we had for some time been conducting our establishment in the same manner as we now do under the Act. We never had any occasion to work youths beyond the hours appointed, namely, from six to six. We think the application of the Factory Act to lace factories perfectly fair and right, and have, in fact, held this opinion for some years."

No. 2. "Our trade has been in such a bad state that I cannot give a very accurate opinion of the effect of the application of the Act of Parliament. We certainly cannot make so much work owing to it, but then a few of the children are benefited by education."

No. 3. "I beg to say that we have not only been put to great inconvenience, but have sustained great loss, through the operation of the lace Act, but have not employed youths otherwise than from six to six."

I have thus, I hope, removed the weight of any objections

which may be advanced to placing all these various kinds of employments under the Factory Acts. It would most materially simplify our duties, and would be a source of great satisfaction, not only to the workers, but to all those who are endeavouring at so much labour and cost to educate our rising artizans without interfering with their legitimate pursuits. We complain of our public-houses being filled with working men after the hours of work are over, and that restrictive beer bills are necessary to prevent the extension of such houses. We complain of the want of domestic knowledge on the part of our female factory workers, and of the want of attraction in the poor man's house, and of the neglected state of his family, forgetting the while that the wife is away all day from home, and from her domestic duties, often working for her family instead of that being done by the husband, and that she is utterly unable therefore to discharge the functions which belong to her as a wife and mother. We complain of the low state of morality amongst the working classes, without remembering to what late hours the sexes are congregated, and to what influences they are exposed in going to and returning from work, and that they are almost without moral supervision, and we will not see that female labour in factories, even though it may be necessary, is at variance with domestic teaching, and that for the sake of the wages which it brings everything that is good and holy in the female character is too often sacrificed.

Happy indeed will it be for the manufacturing districts of England when every married woman having a family is prohibited working in any textile works at all, for it is contrary to the course of all nature that mothers should have to deposit their nurslings with some friend or neighbour, or perhaps in some institution established for that purpose, whilst they go out to work for the family living. We should then have less infantile convulsions, less of disease from Daffey's Elixir and Godfrey's cordial, and perhaps fewer deaths to record. And happy will it also be when no females shall labour in any such works after six o'clock at night, and when every child in them shall be educated as a matter of course in conjunction with employment; when our young men may have leisure to betake themselves to night schools, and our young women to female guidance and instruction. We could lay these propositions down as a broad principle to be kept, without violating any shred of class liberty, and without in any way interfering with the spirit of commercial enterprize, and society would be endlessly the better for it. They are the great and sacred principles of the Factory Acts, which, whilst they have conferred the highest benefits on the working classes, have neither diminished production nor lowered wages, but have increased both; and thus they commend themselves

not less for their beneficial than for their practical excellence.

A Return was made to an Order of the House of Commons in the early part of 1862 "of the number of cotton, woollen, "worsted, flax, hemp, jute, hosiery, and silk factories subject "to the Factories Acts," with certain exceptions, in continuation of other Parliamentary Papers, which had preceded it in 1856, 1850, and 1839. By this Return, considerably more information was afforded about the state of the textile manufactures in the United Kingdom than heretofore, and a better and fuller classification and arrangement of the different kinds of mills was effected for future data. Without some explanation, however, even this last Return, when compared with those of former periods, might mislead persons who may hereafter be desirous of investigating the progress of our manufactures, whether with reference to the supply of raw material, or to the absolute increase of machinery and production, or to the relative effect of these causes upon wages and the social condition of the workpeople. In preceding periods, for instance, the doubling spindles, i.e., spindles used for a secondary process, though not very many in number, were aggregated with the spinning spindles! But it is the spinning spindles alone which are employed in the primary processes of all manufactures, and, therefore, they alone indicate the consumption of raw material. By the last Return they are kept separate. The number of power-loom weavers are also now additionally given. The "indicated power of the "steam engines and water wheels" is exchanged for the "nominal power," which represents only a portion of the actual power employed. In woollens, the number of "gigs" are added, thereby drawing a distinction between the manufacturing and finishing machinery. Jute and hemp mills are separated from flax mills, with which they were formerly blended; and hosiery mills are given for the first time with special information as to their machinery, forming useful data with respect to the further progress of this branch of our manufactures. All these additions and re-arrangements were absolutely necessary, in order to render the information contained in similar Returns of value; of value, as indicative of our annual demand upon the supplies of all kinds of raw material, and in thus directing public attention to the sources from whence these supplies are to be obtained; of value, as showing our production and the necessity of seeking for new markets; and of still greater value as pointing to the probable alternations of "good and bad times," whether occasioned by excessive production or otherwise, and to the commercial precautions, which are even necessary now, within certain periods to prevent or meet them, the limits of which may be almost predicted.

In the following Tables, I have, therefore, attempted to reproduce the Returns of 1839, 1850, 1856, and 1862, in comparison, i.e., the number and kinds of mills in each period in each county in the kingdom, and the number of persons employed, reserving only all the figures of 1862 as correct data for future use. The results, show, I think, the necessity for the task which I have undertaken, in order to prevent miscalculation hereafter; for, in some cases, there is a large increase of factories, in others, there is a decrease of factories, with the apparent anomaly of an increase in the number of persons employed, to be readily accounted for by the stoppage of some of the factories and by the enlargement of those that remained. In some, fewer children are employed than formerly, their labour having been superseded by machinery; in others, their numbers are increased, where smaller hands are able to perform the required work at less wages. In some counties, the trades have entirely ceased: in others, they are found for the first time: whilst in all the Tables, we may notice how the trades converge to the great central markets, and to the districts where all the appliances, both for the manufacture and the disposal of the products, are readiest and most accessible.

I may exemplify the utility of this re-arrangement by a reproduction of the general summaries of the two periods of 1856 and 1862.

—	No. of Factories.	Increase per Cent.	Spindles.	Increase per Cent.	Power—Steam.	Increase per Cent.	Power—Water.	Increase per Cent.	Children Employed.	Increase per Cent.	Total Persons.	Increase per Cent.
1856	5,117	—	33,503,580	—	137,711	—	23,724	—	46,071	—	682,497	—
1862	6,378	24·6	36,450,028	8·7	375,294	172·5	29,399	23·9	54,411	8·0	775,534	13·6

In which we see, that in five years there appears to have been a gross increase of factories of all kinds of 24·6 per cent., but only an increase of spindles equal to 8·7 per cent. There appears also a gross increase of steam power equal to 172·5 per cent., and of water power of 23·9 per cent., which arises mostly from the "indicated power" being now given, instead of the "nominal power," and certainly not to an actual addition of power, in five years of 171 per cent. Moreover, amidst this great increase of mills and power, we may notice that the persons employed only increased in little more than half the ratio of the mills, which is doubtless due to a large displacement of labour by new machinery. Of all the points, however, in these Tables, the spindles are the most important, because, with the limitation of the hours of labour and an average of the "counts" spun, the gross consumption of raw

material is simply a rule of three, which might be very useful if it was more frequently studied by our manufacturers, and would perhaps lead to fewer panics.

The Cotton trade is found only in 15 counties in England and Wales, and in all of these it has existed since 1839. In one only has it disappeared.

Its importance in these counties, down to wherever 100 persons are engaged in it, is in the following order:

Counties.	Mills in 1862.	Persons employed.		Persons to a Factory.
		1839.	1862.	
Lancaster	1,979	152,150	315,627	159
Chester	212	36,352	40,860	192
York	369	12,436	27,810	76
Derby	79	10,462	12,965	164
Cumberland	15	1,986	3,281	212
Nottingham	26	1,460	2,183	83
Stafford	8	2,078	1,982	247
Gloucester	1	29	1,514	1,514
Warwick	7	84	445	63
Middlesex	10	539	323	32
Leicester	3	244	219	73
Flint	1	1,010	190	190

In eight of these 15 counties the number of mills has increased since 1839. In four it has decreased, and in three remained stationary. Lancashire employs 77·4 per cent. of the total number of persons employed in the cotton trade in England and Wales. In the counties of Lancaster, Chester, and York, the total increase of mills since 1839 is 59·6 per cent., and of persons employed 91·2 per cent. In addition to this, the speed of the spindles has increased, upon throstles 500, and upon mules 1,000 revolutions a minute, i.e., the speed of the throstle spindle, which in 1839 was 4,500 times a minute, is now 5,000; and of the mule spindle, that which was 5,000 is now 6,000 times a minute, amounting in the former case to a tenth, and in the later to a sixth additional increase, to that of the mills themselves. We may form an idea of the stupendous nature of the cotton trade, when we consider that of the gross number of textile factories in the United Kingdom it absorbs 45·2 per cent., of the spindles 83·3 per cent., of the power-looms 81·4 per cent., of the mechanical horse

power 72·6 per cent., and of the total number of persons employed 58·2 per cent.

We may notice from the "Table of the Progress," &c., that the mills of Lancashire increased 4 per cent. only between 1839 and 1850, 19 per cent. between 1850 and 1856, and 33 per cent. between 1856 and 1862; and that the persons employed in them increased upwards of 40 per cent., in each period of 11 years, i.e., between 1839 and 1850, and between 1850 and 1862.

In Yorkshire the comparative rates of increase per cent. of mills was greater than in Lancashire at both periods. In Lancashire, Cheshire, York and Cumberland, the greatest increases took place in the weaving mills, and in mills for miscellaneous purposes.

In Scotland 10 counties possess the cotton trade, and it has disappeared in one. Their importance, down to the employment of 100 persons in each, is in the following order:—

Counties.	Mills, 1862.	Persons employed.		Persons to a Factory.
		1839.	1862.	
Lanark - - - -	96	20,288	27,065	281
Renfrew - - -	44	7,851	8,749	198
Ayr - - -	3	961	1,089	363
Perth - - -	3	1,694	1,069	356
Bute - - -	4	455	876	219
Aberdeen - - -	2	1,790	770	385
Dumbarton - - -	4	1,364	758	189
Stirling - - -	5	693	528	105
Linlithgow - - -	1	100	121	121
Dumfries - - -	1	106	112	112

In Stirling and Bute only are there increases of mills since 1839. In all the other counties the number of mills have either decreased or remained stationary, whilst, with the exception of Stirling, Dumbarton, Perth and Aberdeen, the number of persons employed has increased.

In Lanark, for instance, where in 1839 the total number of cotton mills was 111, and the persons employed 20,288, the mills have decreased 15·6 per cent., whilst the persons employed have increased 33·4 per cent.; and in Renfrew, where the mills have decreased 59 per cent. the persons employed have increased 11·4 per cent.

In Ireland the cotton trade is found in six counties only. It has entirely disappeared in six. The importance of these counties, down to the employment of 100 persons in any one of them in the aggregate, is in the following order:—

Counties.	Mills.	Persons employed.	
		1839.	1862.
Waterford - -	1	1,011	1,412
Antrim - - - -	3	2,000	639
Dublin - - - -	2	342	492

There is not in any of the counties of Ireland a single instance of the number of cotton mills increasing since 1839. In Londonderry and Tyrone, however, it is new.

In the following Tables summaries are given of the total number of mills, machinery, and of persons employed in the four periods of 1839, 1850, 1856, and 1862, with the centesimal increases of those periods, and with the comparative increases between the first and second series of 11 years. They exhibit also these increases in the counties of the United Kingdom separately, and of the persons employed in each county, and of the average number of persons employed in each factory in each county. The number of spindles is also given, to show the consumption of raw material; and the number of power-looms, to exhibit the vast increase of production since 1850, and which indeed might be also well-nigh doubled, in consequence of the increased speed at which the looms are now worked.

SUMMARY of the COTTON FACTORIES in the UNITED KINGDOM, showing the various kinds of Cotton Mills at present existing, the Quantity of Machinery, the Numbers of Persons employed, and the Difference between the Nominal and Indicated Horse Power, and in Comparison, between 1862, 1856, 1850, and 1839.

Years.	Factories.														Increase per Cent.		Number of Persons employed.						Increase per Cent.		Nominal Horse Power.		Indicated Horse Power.	
	Spinning Mills.	Increase per Cent.	Number of Spindles. Spinning Spindles for 1862.	Increase per Cent.	Weaving Mills.	Increase per Cent.	Power Looms.	Increase per Cent.	Power-loom Weaving.	Spinning and Weaving Mills.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.	Children.			Adolescents and Adults.			1839 to 1850.	1851 to 1862.	Steam.	Water.	Steam.	Water.
																	Males.	Females.	Total.	Males.	Females.	Total.						
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1,911	—	—	—	—	—	—	—	259,365	—	—	—	—	—	—
1850	834	—	20,977,017	—	278	—	249,627	—	—	573	—	247	—	1,932	1·0	—	9,482	5,511	14,993	141,501	189,423	330,924	27·5	—	71,005	11,556	—	—
1856	986	18·2	28,010,217	33·5	460	65·4	298,847	19·7	—	652	13·7	112	D.	2,210	—	—	14,363	10,285	24,648	157,186	222,027	379,213	—	—	88,001	9,131	—	—
1862	1,142	15·8	30,387,467	8·4	779	69·3	399,992	33·8	166,209	698	7·0	268	139·2	2,887	—	49·4	22,081	17,707	39,788	182,556	269,103	451,569	—	36·4	—	—	281,663	12,467

E

TABLE showing the INCREASE and DECREASE of COTTON MILLS in the DIVISIONS of the UNITED KINGDOM, the total Number of Persons employed in them, and the average Number of Persons to a Factory.

Country.	Years.	Number of Mills.	Per Cent.		Number of Persons employed.	Per Cent.		Number of Persons to a Factory.	Per Cent.	
			Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
England and Wales.	1839	1,679	—	—	219,177	—	—	130	—	—
	1850	1,753	4·4	—	291,662	33·0	—	166	27·6	—
	1856	2,046	16·7	—	341,170	16·9	—	166	—	—
	1862	2,715	32·6	—	407,598	19·4	—	150	—	10·6
Scotland	1839	208	—	—	35,576	—	—	171	—	—
	1850	168	—	23·8	36,325	2·1	—	216	26·3	—
	1856	152	—	10·5	34,698	—	4·6	228	5·5	—
	1862	163	7·2	—	41,237	18·8	—	252	10·5	—
Ireland	1839	24	—	—	4,612	—	—	192	—	—
	1850	11	—	118·1	2,937	—	57·0	267	39·0	—
	1856	12	9·0	—	3,345	13·8	—	278	4·1	—
	1862	9	—	33·3	2,734	—	22·3	303	8·9	—

With respect to the annual consumption of raw cotton, if the number of first process spindles is taken as 30,387,467, working, when fully employed, 60 hours a week, for 52 weeks, less holidays, with revolutions varying between 5,000 and 6,000 times a minute, and the average weight of cotton spun per spindle as 9½ oz. weekly, we find that it amounts to 1,051,623,380 lbs. Mr. Alderman Baynes, of Blackburn, in his "Lectures on the Cotton Trade," gives the consumption of cotton in 1856 as 2,204,800 bales, of 406 lbs. to the bale, equal to 895,148,800 lbs., since which time, the spinning spindles have materially increased. The following Table shows the number of spindles at different periods, the consumption of cotton, the import of cotton, less the export, and the excess or deficiency of importation over consumption. But two or three circumstances should be borne in mind; first, that the doubling spindles of 1850 and 1856 are included with the spinning spindles, by which the consumption of cotton may be somewhat exaggerated; secondly, that the average counts may vary now from what they were in 1856, which may also affect the same calculation, but not so much so as to be very material; and, thirdly, that the required quantity

of cotton is given as if every spindle worked full time all the year round.

Years.	Number of Spindles.	Consumption of Cotton.	Importation of Cotton, less Export.	Stock in Hand in previous Year.	Gross Stock remaining for Consumption.	Excess.	Deficiency.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1839	—	—	389,396,559	—	—	—	—
1850	20,977,017	725,954,574	611,169,248	106,620,800	717,790,048	—	8,164,526
1856	28,019,217	969,550,754	876,550,998	131,834,560	1,008,385,558	38,834,804	—
1862	30,387,467	1,051,623,380	958,734,112	243,749,100	1,202,483,212	150,859,832	—

Mr. Baynes thinks that "The great increase of mills as "compared with the number of persons employed has arisen "from the rapid extension of small power-loom weaving "establishments; and the scarcity of workpeople has "induced the manufacturer to give a weaver three and "sometimes four looms instead of two, in order to keep his "machinery at work." He also thinks that the counts are on the average much above 30's. He estimates the consumption per spindle at 9½ oz. per week, at which I have therefore taken it. I would add, that the estimated production of cloth by the power looms is 89,248,216 lbs. annually. Mr. Baynes also adds what is very important with reference to the supply of raw material, namely, that "The greatest amount "of cotton taken by the trade was in the year 1860, when "there was every inducement for spinners to keep every "spindle at work, owing to the profitable state of the trade, "and that was 2,633,245 bales, at 410 lbs. per bale, or "1,079,630,450 lbs." But as the spindles then amounted to 30,387,467, and their power of consumption at the rate of 9½ oz. of cotton per spindle per week, equalled 1,051,623,380 lbs., the margin is very small between supply and demand when every spindle is at work. Finally, this amount may be taken as the annual demand for cotton for some time to come, except as the mills may be compelled to work short time for want of it, and therefore, as the outlay of capital on machinery may be unprofitable.

TABLE of the PROGRESS of the COTTON TRADE in

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1,187	—	—
1850	517	—	—	196	—	176,847	—	—	436	—	86	—	1,235	4·0	—
1856	591	14·3	—	344	75·5	224,353	26·8	—	516	18·3	29	D.	1,480	—	—
1862	727	23·	21,530,532	571	65·9	306,423	36·5	128,996	565	9·4	116	300·0	1,979	—	60·2
1839	—	—	—	—	—	—	—	—	—	—	—	—	166	—	—
1850	76	—	—	6	—	29,066	—	—	58	—	5	—	145	D.	—
1856	87	14·4	—	7	16·6	31,438	8·1	—	57	D.	1	D.	152	—	—
1862	126	44·8	3,373,113	19	171·4	32,823	4·5	14,277	56	D.	11	—	212	—	46·2
1839	—	—	—	—	—	—	—	—	—	—	—	—	174	—	—
1850	117	—	—	22	—	8,102	—	—	30	—	58	—	227	30·4	—
1856	151	29·0	—	41	86·3	8,783	8·4	—	29	D.	4	D.	225	—	—
1862	173	14·5	2,414,898	117	185·3	17,393	98·0	5,580	33	13·7	46	—	369	—	62·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	13	—	—
1850	8	—	—	1	—	296	—	—	1	—	1	—	11	D.	—
1856	7	D.	—	3	200·0	1,364	360·8	—	2	100·0	1	—	13	—	—
1862	6	D.	136,212	7	133·3	1,761	29·1	879	2	—	—	—	15	—	36·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	92	—	—
1850	36	—	—	4	—	7,266	—	—	13	—	21	—	74	D.	—
1856	48	33·3	—	9	125·	7,773	6·8	—	16	23·0	2	D.	75	—	—
1862	37	D.	681,528	3	D.	7,186	D.	3,103	14	D.	25	—	79	—	6·7
1839	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—
1850	1	—	—	—	—	33	—	—	1	—	8	—	10	D.	—
1856	4	300·0	—	—	—	—	D.	—	—	—	—	—	4	—	—
1862	3	D.	81,116	—	—	694	—	492	—	—	5	—	8	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	—	D.	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	—	—	—	—	—	—	—	—	—	—	2	—	2	D.	—
1856	—	—	—	4	—	137	—	—	—	—	—	—	4	—	—
1862	—	—	—	4	—	186	35·7	138	—	—	3	—	7	—	250·0
1839	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—
1850	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—
1856	—	—	—	—	—	1,250	—	—	1	—	1	—	2	—	—
1862	—	—	66,004	—	—	1,115	—	574	1	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	—	—	—	—	—	—	—	—	—	—	7	—	7	133·3	—
1856	—	—	—	10	—	279	—	—	1	—	—	—	11	—	—
1862	2	—	4,408	—	—	14	D.	8	1	—	—	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	4	—	—	—	—	—	—	—	—	—	13	—	17	—	—
1856	4	—	—	—	—	—	—	—	—	—	11	D.	15	—	—
1862	3	D.	5,834	—	—	—	—	—	—	—	7	D.	10	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—
1856	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—
1862	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	13	—	—
1850	3	—	—	—	—	—	—	—	—	—	16	—	19	46·1	—
1856	17	466·6	—	—	—	—	—	—	1	—	37	131·2	55	—	—
1862	26	52·9	36,000	—	—	—	—	—	—	—	25	D.	26	—	36·8

ENGLAND and WALES, from 1839 to 1861 inclusive.

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
4,572	—	3,007	—	7,579	69,916	—	82,234	—	152,150	—	—	—			
6,609	44·5	3,250	8·0	9,859	97,026	38·7	118,957	44·6	215,983	41·8	41·8	—	Lancaster		
10,347	56·5	6,916	112·8	17,263	112,328	15·7	146,715	23·3	259,043	19·9	—	—			
16,811	62·4	13·209	90·9	30,010	135,082	20·2	180,545	23·0	315,627	21·8	—	46·1		202,432	3,404
741	—	449	—	1,190	17,676	—	18,676	—	36,352	—	—	—			
1,055	42·3	550	22·4	1,605	16,877	D.	18,895	1·1	35,772	D.	D.	—	Chester		
1,409	33·5	859	56·1	2,268	16,850	D.	20,744	9·7	37,594	5·0	—	—			
1,727	22·5	1,179	37·2	2,906	17,471	3·6	23,389	12·7	40,860	8·6	—	14·2		35,658	1,224
580	—	558	—	1,138	5,662	—	6,774	—	12,436	—	—	—			
1,184	104·1	851	52·5	2,035	9,300	64·2	9,391	36·4	18,691	50·2	50·2	—	York		
1,425	20·3	1,280	50·4	2,705	9,024	D.	10,138	7·6	19,162	2·5	—	—			
2,346	64·6	2,030	58·5	4,376	12,975	43·7	14,835	46·3	27,810	44·6	—	48·7		17,811	1,597
15	—	6	—	21	721	—	1,265	—	1,986	—	—	—			
12	D.	16	166·6	28	804	11·5	1,487	17·5	2,291	15·3	15·3	—	Cumberland		
44	266·6	32	100·0	76	963	19·7	1,939	30·3	2,902	26·6	—	—			
75	70·4	46	43·7	121	1,040	7·9	2,241	15·5	3,281	13·0	—	43·2		823	80
332	—	395	—	727	4,231	—	6,231	—	10,462	—	—	—			
422	27·1	456	15·4	878	5,541	30·9	7,118	14·2	12,659	20·9	20·9	—	Derby		
608	44·0	726	59·2	1,334	5,887	6·2	8,376	17·6	14,263	12·6	—	—			
642	5·5	759	4·5	1,401	5,013	D.	7,952	D.	12,965	D.	—	2·4		2,948	2,408
100	—	130	—	230	734	—	1,344	—	2,078	—	—	—			
28	D.	45	D.	73	516	D.	1,009	D.	1,525	D.	D.	—	Stafford		
29	3·5	18	D.	47	262	D.	539	D.	801	D.	—	—			
68	134·4	93	416·6	161	612	133·5	1,370	154·1	1,982	147·4	—	29·9		791	360
49	—	29	—	78	376	—	634	—	1,010	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
9	—	5	—	14	86	—	140	—	226	—	D.	—	Flint		
—	D.	—	D.	—	62	D.	128	D.	190	D.	—	D.		40	80
2	—	4	—	6	15	—	24	—	39	—	—	—	Salop	—	—
1	—	2	—	3	43	—	41	—	84	—	—	—			
—	—	—	—	—	42	D.	29	D.	71	D.	D.	—	Warwick		
—	—	—	—	—	96	128·5	155	434·4	251	253·5	—	—		50	—
—	—	—	—	—	140	45·8	305	96·1	445	77·2	—	526·7			
—	—	—	—	—	15	—	14	—	29	—	—	—			
16	—	13	—	29	488	—	1,061	—	1,549	—	—	—	Gloucester		
79	393·1	25	—	104	545	—	1,030	—	1,575	—	—	—		1,450	—
77	D.	37	—	114	502	—	1,012	—	1,514	—	—	—			
—	—	—	—	—	54	—	190	—	244	—	—	—			
3	—	2	—	5	180	233·3	439	131·0	619	153·6	153·6	—	Leicester		
—	—	—	—	—	359	99·4	242	D.	601	D.	—	—		42	—
—	—	—	—	—	87	D.	132	D.	219	D.	—	D.			
8	—	7	—	15	289	—	250	—	539	—	—	—			
—	—	—	—	—	332	14·8	122	D.	454	D.	D.	—	Middlesex		
—	—	—	—	—	191	D.	170	39·3	461	1·5	—	—		111	—
—	—	—	—	—	204	6·8	119	D.	323	D.	—	D.			
—	—	—	—	—	6	—	124	—	130	—	—	—			
—	—	—	—	—	100	—	177	42·7	277	113·0	113·0	—	Norfolk		
—	—	—	—	—	51	D.	116	D.	167	D.	—	—		12	—
—	—	—	—	—	30	D.	64	D.	94	D.	—	D.			
16	—	19	—	35	454	—	1,006	—	1,460	—	—	—			
1	—	—	—	1	361	D.	1,336	32·8	1,697	16·2	16·2	—	Nottingham		
74	—	50	—	124	1,513	319·1	2,327	74·1	3,840	126·2	—	—		943	10
28	D.	29	D.	57		D.	1,735	D.	2,183	D.	—	28·6			

TABLE of the PROGRESS of the COTTON TRADE in

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—
1856	—	—	—	—	—	—	—	—	—	—	5	66·6	5	—	—
1862	—	—	—	—	—	—	—	—	—	—	2	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	1	—	32	32	—	—	—	—	—	1	—	—

TABLE of the PROGRESS of the COTTON TRADE

1839	—	—	—	—	—	—	—	—	—	—	—	—	111	—	—
1850	31	—	—	37	—	18,811	—	—	17	—	9	—	94	D.	—
1856	28	D.	—	29	D.	16,774	D.	—	16	D.	10	11·1	83	—	—
1862	26	D.	1,138,602	41	41·3	24,149	43·9	12,493	16	—	13	30·0	96	—	2·1
1839	—	—	—	—	—	—	—	—	—	—	—	—	70	—	—
1850	28	—	—	6	—	1,977	—	—	2	—	15	—	51	D.	—
1856	32	14·2	—	4	D.	2,270	14·8	—	3	50·0	7	—	46	—	—
1862	24	D.	408,742	5	25·0	2,968	30·7	1,580	3	—	12	71·4	44	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	—	—	—	1	—	787	—	—	2	—	1	—	4	—	—
1856	—	—	—	1	—	680	D.	—	2	—	1	—	4	—	—
1862	—	—	30,240	1	—	968	42·3	541	2	—	—	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	156	—	—	1	—	—	—	1	—	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	16,308	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	19,800	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	3	—	—	1	—	64	—	—	—	—	—	—	4	33·3	—
1856	3	—	—	1	—	113	76·5	—	—	—	—	—	4	—	—
1862	3	—	50,190	2	100	180	59·2	100	—	—	—	—	5	—	25·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	2	—	—	1	—	233	—	—	1	—	—	—	4	—	—
1856	2	—	—	1	—	244	4·7	—	1	—	—	—	4	—	—
1862	2	—	75,296	1	—	246	0·8	120	1	—	—	—	4	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	2	—	948	—	—	1	—	—	—	4	100·0	—
1856	1	—	—	2	—	995	4·9	—	1	—	—	—	4	—	—
1862	1	—	—	2	—	977	D.	512	1	—	—	—	4	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1850	1	—	—	—	—	528	—	—	2	—	—	—	3	D.	—
1856	1	—	—	1	—	480	D.	—	1	—	—	—	3	—	—
1862	1	—	57,796	1	—	552	15·0	266	1	—	—	—	3	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	1	—	—	1	—	60	—	—	—	—	—	—	2	D.	—
1856	1	—	—	1	—	60	—	—	—	—	—	—	2	—	—
1862	1	—	66,276	1	—	70	16·6	51	—	—	—	—	2	—	—

ENGLAND and WALES, from 1839 to 1861 inclusive—*continued.*

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	—	—	—	78	—	110	—	178	—	—	—	} Surrey -	13	—
—	—	—	—	—	43	D.	31	D.	74	D.	D.	—			
—	—	—	—	—	67	55·8	125	303·2	192	159·0	—	—			
—	—	—	—	—	22	D.	31	D.	53	D.	—	D.			
—	—	—	—	—	—	—	—	—	—	—	—	—	} Suffolk -	12	—
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	32	—	60	—	92	—	—	—			
—	—	—	—	—	16	D.	30	D.	46	D.	—	—			

in SCOTLAND, from 1839 to 1861 inclusive.

165	—	154	—	319	6,023	—	14,265	—	20,288	—	—	—	} Lanark -	12,133	535
82	D.	122	D.	204	5,072	D.	17,687	23·9	22,759	12·1	12·1	—			
94	14·6	138	13·1	232	4,106	D.	17,544	D.	21,650	D.	—	—			
46	D.	64	D.	110	4,616	12·4	22,449	27·9	27,065	25·0	—	18·9			
219	—	163	—	382	2,547	—	5,304	—	7,851	—	—	—	} Renfrew	4,089	857
87	D.	77	D.	164	2,167	D.	5,717	7·7	7,884	0·4	0·4	—			
108	24·1	88	14·2	196	2,022	D.	5,558	D.	7,580	D.	—	—			
151	39·8	129	46·5	280	2,064	2·0	6,685	20·2	8,749	15·4	—	10·9			
40	—	51	—	91	258	—	703	—	961	—	—	—	} Ayr -	110	300
30	D.	55	7·8	85	268	3·8	799	13·6	1,067	11·0	11·0	—			
48	60·0	54	D.	102	267	D.	680	D.	947	D.	—	—			
35	D.	61	12·9	96	257	D.	832	22·3	1,089	14·9	—	2·0			
6	—	3	—	9	77	—	97	—	174	—	—	—	} Kirkcud-bright.	—	—
1	D.	2	D.	3	54	D.	119	22·6	173	D.	D.	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
12	—	1	—	13	70	—	36	—	106	—	—	—	} Dumfries	60	20
—	—	—	—	—	29	D.	32	D.	61	—	—	—			
—	—	—	—	—	53	82·7	59	84·3	112	83·6	—	—			
16	—	8	—	24	45	—	55	—	100	—	—	—	} Linlith-gow.	90	10
—	—	—	—	—	50	11·1	68	23·6	118	18·0	18·0	—			
14	—	7	—	21	60	20·0	68	—	128	8·4	—	—			
2	D.	8	—	10	35	D.	86	26·4	121	D.	—	2·5			
14	—	32	—	46	259	—	434	—	693	—	—	—	} Stirling -	—	—
4	D.	9	D.	13	138	D.	418	D.	556	D.	D.	—			
4	—	18	100·0	22	131	D.	405	D.	536	D.	—	—			
11	175·0	3	D.	14	140	6·8	388	D.	528	D.	—	D.			
41	—	46	—	87	510	—	854	—	1,364	—	—	—	} Dumbar-ton.	358	90
22	D.	9	D.	30	254	D.	495	D.	749	D.	D.	—			
35	59·0	29	222·2	64	283	11·4	579	16·9	862	15·0	—	—			
22	D.	29	—	51	246	D.	512	D.	758	D.	—	1·2			
11	—	3	—	14	184	—	271	—	455	—	—	—	} Bute -	315	60
—	—	—	—	—	319	73·3	692	155·3	1,011	122·1	122·1	—			
—	—	—	—	—	300	D.	804	16·1	1,104	9·1	—	—			
—	—	—	—	—	233	D.	743	D.	976	D.	—	D.			
105	—	105	—	210	631	—	1,163	—	1,794	—	—	—	} Perth -	10	340
27	D.	54	D.	81	379	D.	899	D.	1,278	D.	D.	—			
36	33·3	40	D.	76	331	D.	773	D.	1,104	D.	—	—			
40	11·1	31	D.	71	306	D.	763	D.	1,069	D.	—	D.			
26	—	36	—	62	346	—	1,444	—	1,790	—	—	—	} Aberdeen	368	—
—	—	—	—	—	96	D.	634	D.	730	D.	D.	—			
—	—	—	—	—	80	D.	646	1·8	726	D.	—	—			
—	—	—	—	—	78	D.	692	7·1	770	6·0	—	5·4			

TABLE of the PROGRESS of the COTTON TRADE

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	1	—	—	—	—	296	—	—	2	—	—	—	3	—	—
1856	1	—	—	—	—	254	D.	—	2	—	—	—	3	—	—
1862	1	—	11,668	—	—	391	53·9	225	1	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	150	—	—	1	—	—	—	1	—	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	1	—	1,100	—	—	—	—	—	—	1	—	—
1856	—	—	—	1	—	130	D.	—	—	—	—	—	1	—	—
1862	—	—	5,100	—	—	130	—	30	1	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	626	—	—	1	—	—	—	1	—	—
1856	—	—	—	—	—	900	43·7	—	1	—	—	—	1	—	—
1862	—	—	30,292	—	—	940	4·4	573	1	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	3	D.	—
1856	3	—	—	1	—	200	—	—	—	—	—	—	4	—	—
1862	2	D.	72,884	1	—	200	—	112	—	—	—	—	3	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	—	—	—	1	—	122	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	2	—	—	—	—	—	—	—	—	—	—	—	2	D.	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	—	—	149	—	—	1	—	—	—	1	—	—
1862	—	—	—	1	—	60	—	50	—	—	—	—	1	—	—
1862	—	—	—	1	—	36	—	17	—	—	—	—	1	—	—

in IRELAND from 1839 to 1861 inclusive.

Persons employed.												Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.											
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.		1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	—	—	—	90	—	252	—	342	—		—	—	Dublin -	320	30
—	—	—	—	—	88	D.	277	9·9	365	6·7		6·7	—			
—	—	—	—	—	75	D.	290	4·6	365	—		—	—			
—	—	—	—	—	94	25·3	398	37·2	492	34·7		—	34·7			
—	—	—	—	—	93	—	154	—	247	—		—	—	Kildare -	—	—
—	—	—	—	—	50	D.	130	D.	180	D.		D.	—			
—	—	—	—	—	—	—	—	—	—	—		—	—			
6	—	—	—	6	43	—	48	—	91	—		—	—	Wexford	—	30
—	—	—	—	—	47	9·3	59	22·9	106	16·4		16·4	—			
—	—	—	—	—	43	D.	79	33·8	122	15·0		—	—			
—	—	—	—	—	27	D.	69	D.	96	D.		—	D.			
—	—	—	—	—	516	—	495	—	1,011	—		—	—	Water-ford -	200	200
—	—	—	—	—	598	15·9	764	54·3	1,362	34·7		34·7	—			
—	—	—	—	—	726	21·4	922	20·6	1,648	20·7		—	—			
—	—	—	—	—	559	D.	853	D.	1,412	D.		—	3·6			
—	—	—	—	—	19	—	36	—	55	—		—	—	Cork -	—	—
—	—	—	—	—	12	—	38	—	50	—		—	—	Queen's -	—	—
4	—	8	—	12	634	—	1,366	—	2,000	—		—	—	Antrim -	365	30
—	—	—	—	—	192	D.	444	D.	616	D.		D.	—			
—	—	—	—	—	215	11·9	504	13·5	779	26·4		—	—			
—	—	—	—	—	131	D.	508	0·7	639	D.		—	3·7			
6	—	4	—	10	76	—	134	—	210	—		—	—	Armagh -	—	—
—	—	—	—	—	56	—	87	—	143	D.		—	—			
19	—	3	—	22	280	—	307	—	587	—		—	—	Down -	—	—
—	—	—	—	—	104	D.	137	D.	241	D.		—	—			
—	—	—	—	—	2	—	27	—	29	—		—	—	Mayo -	—	—
—	—	—	—	—	60	—	130	—	190	—		—	—	Louth -	—	—
—	—	—	—	—	7	—		—	77	—		—	—	London-derry -	20	—
—	—	—	—	—	6	—	12	—	18	—		—	—	Tyrone -	—	—

The Woollen Trade.

With respect to the woollen trade, the errors in the Returns for 1850 and 1856 consist, as in those of the cotton trade, in both the doubling and spinning spindles being returned in one number, and also in the nominal horse power employed being given, instead of the indicated power, by which the consuming power of the spindles has been liable to be over-estimated, and the actual moving power under-estimated, in both periods. These errors are corrected in the return for 1862, so that henceforth we may have, as nearly as can be ascertained, the entire number of first process spindles in the woollen trade, and may fairly estimate the actual consumption of raw material in this branch of manufacture. "Gigs," also, which are the machines used for dressing and finishing cloth, are given for the first time in the Returns for 1862.

In some parts of Wales, there appears a large increase of mills, much greater than would be justified by a comparison between ordinary periods. For example, in Anglesea, 16 new mills appear to have been brought into operation between 1856 and 1862, simply because they were previously unknown, and, therefore, unnoticed. And so also in Carnarvon and Carmarthen, where, in the former case, 25 mills are introduced for the first time, whilst, in the latter, there appears an increase of mills equal to 117·6 per cent., in both cases arising from the same cause as in Anglesea. Again too, at Leicester, there appears a great decrease, because, in 1856, many hosiery mills were entered as woollen mills, whilst, in 1862, they have been rearranged, and are to be found in the division "hosiery," as well as in that of "woollens."

In this Table, it will be noticed generally, as might be expected, that where goods are made with a ready access to large markets, the increase of mills has been considerable; where they are a special trade, as Welsh flannels, the number of mills has not fluctuated much; whilst, where they are mainly manufactured for local supplies, the mills have decreased, which, I presume, has arisen partly from the increased facilities of transit by railway and partly by the advantages which the aggregated mills possess in the newest machinery, from both of which causes goods manufactured at a distance can be introduced to successful competition with home manufactures, though the latter have the advantages of cheap labour and raw material nigh at hand. Thus we find, that out of the 38 counties in England and Wales in which there is woollen manufacture, the mills have increased between 1839 and 1862 in only Yorkshire, Northumberland, Oxford, Middlesex, Derby, and Surrey (Wales is exceptional); whilst in Wilts, Gloucester, and Devon, which stand high after York-

shire in extent of this kind of manufacture, not only the number of mills, but of the persons employed also, have decreased. The following arrangement exhibits the number of mills in each county, and of persons employed in them, in 1862, in all the mills in which 100 persons or upwards are engaged:—

Counties.	Number of Mills in 1862.	Persons employed in		Persons to a Factory.
		1839.	1862.	
York - - - -	924	27,548	50,473	54
Lancaster - - - -	101	4,947	9,227	101
Gloucester - - -	49	5,515	4,687	95
Wilts - - - -	32	3,218	3,130	97
Somerset - - - -	26	2,133	2,267	87
Montgomery - - -	43	723	803	18
Devon - - - -	16	488	674	42
Oxford - - - -	9	289	614	68
Westmoreland - - -	9	382	492	54
Denbigh - - - -	17	196	322	18
Leicester - - - -	7	—	317	45
Glamorgan - - -	30	141	315	10
Derby - - - -	3	35	310	103
Carmarthen - - -	37	97	220	5
Cumberland - - -	10	274	216	21
Middlesex - - -	7	20	209	29
Flint - - - -	7	—	186	26
Cardigan - - - -	9	36	185	20
Chester - - - -	12	174	169	14
Surrey - - - -	8	70	168	20
Durham - - - -	1	89	162	162
Nottingham - - -	2	—	159	79
Pembroke - - - -	5	—	131	26
Merioneth - - -	17	134	131	7
Northumberland - -	4	53	124	31

It is probable, however, that in many instances, though the mills seem to have decreased in number, those that remained may have been enlarged. In Yorkshire, for example, the mills only increased 50·7 per cent. in the interval between 1839 and 1862, whilst the increase of persons employed amounted to 83·2 per cent.; and in Gloucester, though the

number of mills decreased 155·1 per cent., the number of persons employed decreased only 17·6 per cent. And again, in Wiltshire, where, within the same period, the mills decreased 68·7 per cent., the number of persons employed decreased only 2·8 per cent. The assumption of this enlargement is proved, I think, by the following Table:—

In York,	in	1839,	there were 44	persons to a woollen mill.
„		1862	„ 54	„
In Gloucester,		1839	„ 44	„
„		1862	„ 95	„
In Wilts,		1839	„ 59	„
„		1862	„ 97	„

Which differences can only, I think, be accounted for by the enlargement of the mills which remained.

In Scotland the total number of counties possessing woollen mills is 24, and their importance is in the following order:—

	Mills in 1862.	Persons employed.		Persons to a Factory.
		1839.	1862.	
Roxburgh	21	640	2,027	97
Clackmannan	15	1,083	1,595	106
Selkirk	16	406	1,552	97
Dumfries	7	78	925	132
Aberdeen	25	1,083	702	28
Stirling	23	327	702	30
Perth	16	227	434	27
Ayr	13	435	336	25
Edinburgh	3	32	268	89
Fife	3	17	159	53
Berwick	5	30	104	20

Of the whole number of counties, there were nine which possessed no woollen manufacture in 1839. The return for Aberdeen is remarkable. It had seven mills in 1839, and the number of persons employed in them was at the rate of 154 to a factory, the average number of children being 10. In 1850 the number of children was reduced to one to a factory, and the average number of the total persons to 59. In 1856 the employment of children was all but abandoned, and the average of the total number of workers was 31 to each factory. In 1862 their average was still further reduced to 28. No doubt this altered condition of employment arose from the gradual development of new machinery, whereby production became cheapened, for the mills in Aberdeen are not small factories,

573

at least they employ on an average the power of 38 horses. In Dumfries there has been a progressive increase of the woollen trade, which is there becoming of considerable importance, as also in Stirling, Clackmannan, Roxburgh, and Selkirk.

In Ireland the total number of counties possessing woollen manufacture is 10. In these there are only four in which there are 100 persons employed in the aggregate, viz:—

	Mills, 1862.	Persons employed.		Persons to a Factory.
		1839.	1862.	
Dublin - - -	8	580	235	29
Cork - - -	9	188	154	17
Westmeath - - -	2	—	118	59
Kilkenny - - -	7	87	126	18

The trade has entirely left Kildare and Wicklow, and has been established in Fermanagh, Limerick, Meath, and Westmeath since 1839.

In comparing the return of woollen mills for Ireland in 1839 with that in 1862, the trade would seem to have declined perhaps more than it really has, for there were 15 unoccupied mills in 1839, which were not returned in 1862, and there are really, therefore, more occupied mills in 1862 than there were in 1839, although the total number of persons employed is less. The present position of the whole woollen trade of the United Kingdom, both in itself, and on a comparison with former periods, is as follows:—

SUMMARY of the WOOLLEN FACTORIES of the UNITED KINGDOM, showing the various kinds of Mills at present existing, the Number of Persons, the Quantity of Machinery, and the Difference between the Nominal and Indicated Power, employed therein.

Years.	Factories.														Increase per Cent.		Persons employed.						Increase per Cent.		Nominal Horse Power employed to 1862.		Indicated Horse Power employed, 1862.	
	Spinning Mills.	Increase per Cent.	Spindles. — Spinning Spindles only in 1862.	Weaving Mills.	Increase per Cent.	Number of Power Looms.	Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Gigs.	Miscellaneous.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.	Children.			Adolescents and Adults.			1839 to 1850.	1851 to 1862.	Steam.	Water.	Steam.	Water.
																	Males.	Females.	Total.	Males.	Females.	Total.						
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1,399	—	—	3,502	2,701	6,203	33,269	21,649	54,918	—	—	11,526½	9,097½	—	—
1850	1,047	—	1,595,278	10	—	2,439	—	225	—	—	—	215	—	1,497	7·0	—	4,226	2,868	8,094	44,765	29,678	74,443	35·5	—	13,455	8,089	—	—
1856	942	D.	1,786,972	12	20·0	14,453	—	359	59·5	—	—	192	D.	1,505	—	—	3,774	2,929	6,703	45,583	33,508	79,091	—	—	17,490	8,411	—	—
1862	883	D.	2,182,609	40	233·3	21,770	17,115	507	41·2	129	2,163	120	D.	1,679	—	12·1	3,362	2,607	7,969	49,754	37,229	86,983	—	16·8	—	—	26,879	9,598

TABLE showing the INCREASE or DECREASE of WOOLLEN MILLS in the DIVISIONS of the UNITED KINGDOM, and of the Persons employed, and of the Number of Persons to a Factory.

Country.	Years.	Number of Mills.	Per Cent. Increase.	Per Cent. Decrease.	Persons employed.	Per Cent. Increase.	Per Cent. Decrease.	Persons to a Factory.	Per Cent. Increase.	Per Cent. Decrease.
England and Wales	1839	1,236	—	—	48,611	—	—	39	—	—
	1850	1,306	5·6	—	64,426	32·5	—	49	25·6	—
	1856	1,282	—	1·8	69,130	7·3	—	53	8·0	—
	1862	1,456	13·5	—	76,309	10·3	—	52	—	1·9
Scotland	1839	117	—	—	5,076	—	—	43	—	—
	1850	182	55·5	—	9,464	86·4	—	52	20·9	—
	1856	196	7·6	—	9,280	—	1·9	47	—	10·6
	1862	184	—	6·5	9,812	5·7	—	53	12·7	—
Ireland	1839	46	—	—	1,231	—	—	26	—	—
	1850	9	—	411·1	553	—	122·6	61	134·6	—
	1856	27	200·0	—	681	23·1	—	25	—	44·0
	1862	39	44·4	—	862	26·5	—	22	—	13·6

As I have before stated, in the Parliamentary returns for 1850 and 1856, the spinning and doubling spindles were returned together, instead of being kept separate. If that had not been the case, the increase of the spinning spindles in 1862, as shown in the former of these Tables, would have appeared much larger than it is. The increase of power-looms is worthy of notice, not so much as showing an absolute increase of looms, but the probable substitution of power for handlooms in the manufacture of cloth, which has been a very slow process. Generally it will be noticed that there was nearly double the increase of mills between 1850 and 1862 that there was between 1839 and 1850, whilst the increase of the people employed was in an inverse ratio to this.

By the second of these Tables we find that the number of persons employed to a factory in England and Wales increased in a greater ratio than the factories. Between 1850 and 1856 there was a positive decrease in the number of mills, with at the same time an increase in the number of persons employed; which was probably due to the enlargement of those which remained at work; whilst between 1856 and 1862, there was a considerable increase of mills, the number of persons to a Factory remaining almost stationary, showing how greatly the introduction of new machines had superseded the labour of preceding periods.

In Scotland, between 1839 and 1850, there was a large increase of mills and persons employed, and between 1850 and 1856 the mills still further increased, whilst the persons employed decreased, probably arising from the increased

mills being of inconsiderable size; but between 1856 and 1862 the mills absolutely decreased, whilst the persons employed increased, as was the case in England between 1850 and 1856.

In Ireland there appears to have been a positive decrease of factories in use between 1839 and 1850, which was no doubt owing to a decline in the trade between those periods, which seems to have revived since then, and the discontinued factories have been reoccupied. The difference in the number of persons to each factory, employed, in Ireland, and between Ireland, and England, and Scotland, is due to the character of the manufacture, the woollen goods of Ireland being coarser and requiring fewer hands to manufacture them.

There remains but to consider on the woollen question at large, the demand for, and the supply of raw material for the spinning spindles, which are now known to exist, the consuming power of condensers and all other of its improved machines being reckoned by the spindle. The total number of spinning spindles at present amounts to 2,182,609.

		Increase.
In 1850, including also all doubling spindles, they amounted to -	1,595,278	—
In 1856, including also all doubling spindles, to - - -	1,786,972	12·0
In 1862, exclusive of all doubling spindles, to - - -	2,182,609	22·1

so that, reckoning the doubling spindles of 1850 and 1856 as spinning spindles, in 22 years they have increased upwards of 36·8 per cent.

The gross number of spinning spindles then, being 2,182,609, and the hours of labour per week being limited to 60, and assuming 4 lbs. 8 ozs. of wool as the quantity, on a fair average, which each spindle will consume, the gross conconsumption of wool of all kinds for woollen purposes amounts to 491,087,000 lbs. in 50 weeks, allowing two weeks for holidays and other stoppages.

This estimate, however, is based upon the assumption that all the woollen mills in the United Kingdom are employed five days a week each, which, I think, is excessive. I am rather of opinion that, taking one mill with another, and one district with another, four days a week employment is nearer the mark, upon the average of a year, than five. I should venture, therefore, to deduct one-third from this amount of consumption by reason of short time, which would reduce the actual consumption to 327,391,334 lbs. But as much of the wool which is used upon woollen machinery has been used before, it is necessary to divide the spindles into two classes, viz., one which may be said to use pure wool, or wool from the fleece, and one which may be said to use only wool which

is being remanufactured. What, then, is the quantity of re-manufactured wool admitted into woollen fabrics on an average of all districts? It has been estimated to me as one-third, *i.e.*, one-third Shoddy, Mungo, Brakes, Noils, and other descriptions of re-manufactured wool, and two-thirds pure wool, which, I am afraid, is too little. But, taking it at one-third, then one-third must be taken from the above gross consumption of wool before we can arrive at an approximate proportion of the pure wool assignable to woollen spindles, in contradistinction to that which is peculiar to worsted and alpaca spindles, and the remainder is 218,260,890 lbs.

Mr. James, in his work on the history of the worsted trade, published in 1857, gives the quantity of wool required for the worsted spindles, on data which I know to be excellent, as 99,705,175 lbs. weight; and if so, we appear to have a gross annual consumption of wool, under full-time work, as follows:—

1. For woollen spindles - - -	218,260,890 lbs.
2. For worsted and alpaca spindles -	99,705,175 lbs.
Total - - - -	317,966,065 lbs.

and it is this demand, in ratio of supply, which has so long compelled the woollen trade to be a trade from hand to mouth, "now busy," "now slack," but seldom regular and certain, —which has brought the worsted trade so rapidly into the phase of good and bad times, these occurring now once within months instead of years,—which has so greatly enhanced the price of all kinds of wool, particularly that of home growth, and which must keep it at that price, or even higher, unless our foreign supplies relieve us to a greater extent than they have hitherto done.

The following TABLE gives the IMPORT less EXPORT of FOREIGN WOOL, and of RAGS, and of the NUMBER of SHEEP in SCOTLAND and IRELAND, with an Estimate of the Number of Sheep in England, and the Average Weight of Home-grown Wool and Home-made Wool from Rags.

Years.	Import of Foreign Wool in lbs.	Increase per Cent.	Export of Foreign Wool in lbs.	Increase per Cent.	Remaining for Consumption.	Import of Alpaca.	Export of Alpaca.	Remaining for Consumption.	Number of Irish Sheep.	Number of Scotch Sheep.	Estimated Number of English Sheep.	Product of Wool in the United Kingdom at 5 lbs. the Fleece.	Skin Wool.	Rags imported in lbs.	Estimate of English Rags.	Gross Supply in lbs.
1839	57,364,772	—	4,603,799	—	52,760,973	—	—	—	—	—	—	—	—	—	—	—
1850	72,674,483	26·6	14,054,815	205·2	58,619,668	1,655,300	126,082	1,529,218	—	—	—	—	—	—	—	—
1856	113,236,899	55·8	40,976,583	191·5	72,260,316	2,974,493	84,298	2,890,195	3,694,294	5,816,560	—	—	—	—	—	—
1862	154,167,008	36·1	57,101,530	39·3	97,065,478	2,739,798	43,311	2,696,417	3,455,887	—	25,727,553	175,000,000	43,750,000	20,317,472	10,000,000	—
1857	—	—	—	—	—	—	—	—	—	5,683,168	—	—	—	—	—	—

Import less Export - - - - - - - - -	97,065,478
Alpaca - - - - - - - - - -	2,696,417
United Kingdom - - - - - - - - -	175,000,000
Foreign Rags - - - - - - - - -	20,317,472
Skin Wool - - - - - - - - -	43,750,000
Rags made at Home - - - - - - - - -	10,000,000
Total - - lbs.	348,829,367

In this Table the imports of foreign wool are taken from the official returns of the last three months of 1861 and the first nine months of 1862. The number of Irish and Scotch sheep are taken, the former from the Registrar General of Ireland's return for 1862, the latter from the Report of the Agricultural Society for Scotland for 1857, which has since then, unfortunately, for every reason, been discontinued. The number of English sheep is an estimate between those of Professor Low in 1845, and of Mr. Southey in 1851, and the home-made wool from rags is also an estimate from the rag machinery presumed to exist in this country. Altogether we appear to have a supply of raw material equivalent to 348,829,367 lbs.: whilst the demand, at the lowest calculation, of what may be called a fairly steady trade is equal to 317,966,065 lbs., a margin small enough to account for occasional panics in either the woollen and worsted trades whenever the consumption trenches so closely upon the supply as to raise or threaten to raise the price of the raw material, above the price at which it can be profitably manufactured.

By the last Table it appears that the number of sheep in Ireland has decreased since 1856. Indeed, they are less in number in 1862, by upwards of 4 per cent., than they were in 1855. So also there was a decrease in Scotch sheep of upwards of 2 per cent. between 1856 and 1857. Whatever may be the increase or decrease of English sheep, we have no means of ascertaining; but, considering the increase of the population, it is not only not improbable, but very likely, that the number of English sheep has also decreased since Mr. Southey formed his estimate, which was based upon the calculation of one sheep to the acre on the farms of England and Wales, assumed to average 151 acres each, held by 212,455 farmers, the weight of the fleece, on an average of counties, being 5 lbs. Nevertheless it is true that, if the number of sheep has actually diminished, the loss in lbs. weight of wool may have been restored by the difference in the cultivation of the breeds, to which great attention has lately been paid by the English farmers, encouraged by the advice and assistance of their landlords or their agents. At the date of Mr. Low's calculations even, in many English counties the weight of the fleece had been considerably augmented.

But it is, no doubt, to our Australian colonies that we shall have to look for our greatest future supplies. They furnish a kind of wool which is peculiarly adapted to our manufactures and markets; and, in consequence of the extent of the sheep runs, and the profitable nature of sheep farming, wool may almost be said to be illimitable in its production in them for a great many years to come, provided sufficient energy and capital are thrown into the work. I avail myself of this opportunity to

recommend the perusal of a recent pamphlet by W. A. Broadribb, Esq., a late member of the Legislative Council of Victoria, "On the Capabilities and Advantages of the great "Australian Colonies,"* and also of referring to a return of the number of sheep in all these colonies, up to a recent date, kindly afforded to me by Mr. Sydney Cowper, with a notice also by that gentleman of the quality of their wool. I am also enabled, by the kind permission of a gentleman who was himself for many years a sheep farmer in Queensland, to publish what may be a very acceptable piece of information, in addition to that contained in Mr. Broadribb's pamphlet, to intending emigrants, viz., a debtor and creditor account of a sheep run in that colony, and whose experience is detailed with the utmost possible care.

Mr. Cowper's figures are as follows, being a copy of a return to the Registrar General of the colonies:—

Colonies.	1861. Sheep.
New South Wales - - -	6,119,163
Victoria - - - - -	5,794,127
Queensland - - - -	3,449,350
South Australia - - - -	2,824,811
Tasmania - - - - -	1,700,930
	19,888,381
To which must be added Western Australia	500,000
Total - - - -	20,388,381

Mr. Cowper also states that the merino is in the proportion of 10 to 1 of all other breeds.

Mr. Broadribb, however, estimates his product of wool "in "the grease," whilst my friend's estimate of his is made after it has been washed, and probably is a little understated; but the difference in actual product between them is consequently considerable, the former being 5 lbs. to the fleece, whilst the latter is only 2 lbs., and might probably have been safely estimated at 2½ lbs. This will also account for the difference between the quantity of wool actually imported and that which remains in the colony, since in 1861 the quantity of wool imported from Australia amounted to 68,313,903 lbs., which, at the rate of 5 lbs. to the fleece, would give only

* Beadle and Co., 44, Paternoster Row.

13,662,780 sheep, which is considerably less than the registered number, whilst at 2 lbs. to the fleece it would give the total number of sheep as 34,156,951, which is considerably more than those which appear to be registered. It would, in fact, require, as may be seen, the fleeces to be upwards of 3 lbs. weight each to produce the wool which was exported in 1861, a quantity which promises to be considerably exceeded in 1862. One colonial reason may possibly give a clue to the difference between the actual number of sheep and supply of wool to England, and that is, the payment by the farmers of a head assessment upon their stock to the Government, and who therefore may not return their actual number of sheep; or, that there may be other sheep in the interior of the country which are not included in the Registrar General's return; or, there may be a quantity of this wool shipped elsewhere. Under any circumstance we cannot but be struck with the rapid development of wool-growing in Australia, and of the door which it opens for pecuniary, perhaps eventually, for political reasons, to the emigration of young men with small capital, but possessed of energy sufficient to push their way in the rolling sheep farms of these most productive colonies.

In 1810 Australia sent to us		167	lbs. of wool.
1820	„	99,415	„
1840	„	9,721,243	„
1850	„	39,018,221	„
1861 and 1862	„	64,736,624	„

It will be observed that I have not in the preceding figures made any deduction for loss of weight in wool by washing. In Mr. James's estimate of wool for worsted purposes, he allows for this loss; but it is very difficult to arrive at, varying very much with the kind of wool to be considered; under any circumstances it appears that, but for the employment of rags, our woollen manufacturers would be seriously embarrassed; and even with it, supply and demand of raw material are so nearly equal as to render the trade a very critical one, unless the supply is increased.

The following is the Debtor and Creditor Account of the Sheep Run in Queensland to which I have referred :—

End of	Ewes.	Lambs.		Wedders.	Total.	Sheep sold.			Average Clip, 2 lbs.		Total Amount.
		Female.	Male.			Wedders.	Ewes.	Amount.	Weight.	Amount.	
								£ s. d.	lbs.	£ s. d.	£ s. d.
1st year -	2,000	800	800	—	3,600	—	—	—	7,200	540 0 0	540 0 0
2d „ -	2,800	800	800	800	5,200	—	—	—	10,400	780 0 0	780 0 0
3d „ -	3,600	1,120	1,120	1,600	7,440	—	—	—	14,880	1,116 0 0	1,116 0 0
4th „ -	4,720	1,440	1,440	2,720	10,320	—	—	—	20,640	1,548 0 0	1,548 0 0
5th „ -	6,160	1,888	1,888	3,360	13,296	800 at 15s.	—	600 0 0	26,592	1,994 8 0	2,594 8 0
6th „ -	8,048	2,464	2,464	4,448	17,424	800 „	—	600 0 0	34,848	2,613 12 0	3,213 12 0
7th „ -	8,512	3,216	3,216	5,792	20,736	1,120 „	2,000 at 10s.	1,840 0 0	41,472	3,110 8 0	4,950 8 0
8th „ -	10,928	3,404	3,404	7,568	25,304	1,440 „	800 „	1,480 0 0	50,608	3,795 12 0	5,275 12 0
9th „ -	13,532	4,368	4,368	9,532	31,800	1,888 „	800 „	1,816 0 0	63,600	4,770 0 0	6,586 0 0
10th „ -	15,436	5,412	5,412	11,436	37,696	2,464 „	1,120 „	2,408 0 0	75,392	5,654 8 0	8,062 8 0
11th „ -	19,408	6,172	6,172	13,632	45,384	3,216 „	1,440 „	3,132 0 0	90,768	6,807 12 0	9,939 12 0
12th „ -	23,692	7,760	7,760	16,400	55,612	3,404 „	1,888 „	3,497 0 0	111,224	8,341 16 0	11,838 16 0
13th „ -	28,988	9,476	9,476	19,792	67,732	4,368 „	2,464 „	4,508 0 0	135,464	10,159 16 0	14,667 16 0
14th „ -	35,248	11,592	11,592	23,856	82,288	5,412 „	3,216 „	5,667 0 0	164,576	12,343 4	18,010 4 0
Sheep shorn - - - - - - -					423,832	24,912 „	13,728 „	25,548 0 0	847,664	63,574 16 0	89,122 16 0

Capital required to commence with, viz.:—

	£ s. d.	£ s. d.
To 2,000 two-year-old ewes, at 20*s.*; 30 Merino rams, at 50*s.* - -	2,075 0 0	
Three horses, at 25*l.*; saddles and bridles, 10*l.*; cart harness, 5*l.*; spring cart, 15*l.* - - -	105 0 0	
A team of six working bullocks, cows, yokes, and chains, 50*l.*; a dray, 20*l.*	70 0 0	
250 hurdles, 25*l.*; four men's wages, 50*l.* each; rations for six, 20*l.* each	345 0 0	
Two slab huts, 10*l.*; wool shed, 10*l.*; fencing in a paddock, 50*l.* -	70 0 0	
Government licence, 20*l.*; shearing, 36*l.*; wool bags and carting, 10*l.*	66 0 0	
Balance in cash to meet any other requirements - - -	269 0 0	3,000 0 0
Expenditure.		
One man for every 1,000 sheep, say for 424 men; wages, 50*l.*, and rations, 20*l.* each - - -	29,680 0 0	
Home station, three servants at 50*l.* wages; rations for five, 250*l.* per annum - - - -	3,500 0 0	
Washing and shearing 424,000 sheep, at 20*s.* per 100 - - -	4,240 0 0	
Carting 380 tons of wool bales, at 5*l.* per ton (assumed) - -	1,900 0 0	
Say for slab huts, houses, fencing hurdles or sheep yards, &c. -	880 0 0	
If 3,000*l.* capital was borrowed for five years, colonial interest, 10 per cent.	1,800 0 0	
Government licence for 200 square miles, at 100*l.* per annum - -	1,440 0 0	43,440 0 0
Total realized.		
To wool sold during the period of 14 years - - - - -	63,574 0 0	
38,640 old ewes and four-year-old wedders sold or boiled, 5*s.* each -	9,660 0 0	
Goodwill of station, with 82,288 sheep, say 20*s.* (probably 30*s.*) -	82,288 0 0	
Horses, cattle, drays, carts, farm implements, &c. - - - -	500 0 0	
	156,022 0 0	
By 14 years' expenses - -	42,720 0 0	113,302 0 0
Original capital - -	3,000 0 0	
Increase „ -	110,302 0 0	113,302 0 0

On referring to the Table of the general summary of the woollen spindles of the United Kingdom, it is seen that they increased upwards of 12 per cent. between 1839 and 1850, and 22 per cent. between 1851 and 1862, so that there is ample encouragement to any extent of sheep culture for manufacturing purposes alone.

WOOLLENS.—ENGLAND.

Years.	Factories.															Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Gigs.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105	—	—
1850	26	—	—	—	—	4,839	—	—	Not given.	—	—	—	—	—	—	—	—
1856	13	D.	—	—	—	5,733	18·4	—	86	—	—	—	—	—	99	—	—
1862	17	30·7	277,655	5	—	6,377	11·2	3,197	74	D.	1	16	4	—	101	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—
1850	7	—	—	—	—	—	—	—	—	—	—	—	5	—	12	D.	—
1856	10	42·8	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—
1862	6	D.	7,828	—	—	22	—	11	1	—	—	—	5	—	12	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	613	—	—
1850	532	—	—	9	—	3,604	—	—	180	—	—	—	159	D.	880	43·5	—
1856	482	D.	—	8	D.	6,356	76·3	—	165	D.	—	—	151	D.	806	—	—
1862	422	D.	1,296,190	28	250·0	11,405	79·4	10,439	275	66·6	124	1,419	75	D.	924	—	5·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—
1850	7	—	—	—	—	13	—	—	1	—	—	—	—	—	8	D.	—
1856	6	D.	—	—	—	30	130·7	—	2	100·0	—	—	—	—	8	—	—
1862	7	16·6	17,724	—	—	84	180·0	62	2	—	—	8	—	—	9	—	12·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	—	—
1850	10	—	—	—	—	—	—	—	1	—	—	—	—	—	11	D.	—
1856	11	10·0	—	—	—	30	—	—	3	200·0	—	—	—	—	14	—	—
1862	9	D.	6,037	—	—	30	—	22	1	D.	—	3	—	—	10	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	—	—	—	—	—	12	—	—	1	—	—	—	—	—	1	D.	—
1856	—	—	—	—	—	12	—	—	1	—	—	—	—	—	1	—	—
1862	4	—	3,820	—	—	—	—	—	—	—	—	3	—	—	4	—	300·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1862	—	—	1,310	—	—	34	—	35	1	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	2	—	—	—	—	74	—	—	—	—	—	—	—	—	2	D.	—
1856	2	—	—	—	—	74	—	—	2	—	—	—	—	—	3	—	—
1862	3	50·0	11,928	—	—	—	—	—	—	—	—	—	—	—	4	—	100·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1850	6	—	—	—	—	2	—	—	1	—	—	—	—	—	7	D.	—
1856	4	D.	—	—	—	—	—	—	4	—	—	—	—	—	8	—	—
1862	11	175·0	6,067	—	—	72	—	36	6	—	—	—	—	—	17	—	142·8
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2	D.	—
1856	—	—	—	—	—	23	—	—	2	—	—	—	—	—	2	—	—
1862	—	—	990	—	—	16	D.	8	1	—	—	1	—	—	1	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	62	—	—
1850	54	D.	—	—	—	—	—	—	—	—	—	—	—	—	54	D.	—
1856	33	D.	—	—	—	108	—	—	9	—	—	—	—	—	42	—	—
1862	32	D.	20,920	—	—	262	142·5	221	11	22·2	—	—	—	—	43	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	—	—
1850	16	—	—	—	—	—	—	—	—	—	—	—	—	—	16	D.	—
1856	18	12·5	—	—	—	14	—	—	2	—	—	—	—	—	20	—	—
1862	13	D.	3,498	—	—	31	—	19	4	—	—	—	—	—	17	—	6·2
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—
1850	9	—	—	—	—	—	—	—	—	—	—	—	—	—	9	D.	—
1856	7	D.	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1862	9	28·5	3,110	—	—	—	—	—	—	—	—	—	—	—	9	—	—

- - - - - - WOOLLENS.—ENGLAND.

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
523	—	424	—	947	3,086	—	1,861	—	4,947	—	—	—			
795	52·0	684	61·3	1,479	5,104	65·3	3,712	99·4	8,816	78·2	78·2	—	Lancaster -	2,121	337
952	19·7	1,101	60·9	2,053	5,015	D.	4,394	18·3	9,409	6·7	—	—			
852	D.	1,131	2·7	1,983	4,803	D.	4,424	0·6	9,227	D.	—	4·6			
20	—	10	—	30	135	—	39	—	174	—	—	—			
11	D.	14	D.	25	78	D.	36	D.	114	D.	D.	—	Chester -	80	62
18	63·6	29	107·1	47	75	D.	43	19·4	118	3·5	—	—			
32	77·7	16	D.	48	115	53·3	54	25·5	169	43·2	—	48·2			
2,185	—	1,601	—	3,786	18,735	—	8,813	—	27,548	—	—	—			
3,191	46·0	2,045	27·7	5,236	26,614	42·0	13,997	58·8	40,611	47·4	47·4	—	York -	19,643	2,816
2,584	D.	1,601	D.	4,245	27,309	2·6	15,673	11·9	42,982	5·8	—	—			
2,146	D.	1,265	D.	3,411	30,902	13·1	19,571	24·8	50,473	17·4	—	24·2			
22	—	18	—	41	201	—	181	—	382	—	—	—			
19	D.	10	D.	29	201	—	141	D.	342	D.	D.	—	Westmoreland	70	219
12	D.	3	D.	15	213	5·9	192	36·1	405	18·4	—	—			
28	133·3	24	700·	52	254	19·2	238	23·9	492	21·4	—	43·8			
29	—	24	—	53	176	—	98	—	274	—	—	—			
10	D.	8	D.	18	119	D.	114	16·3	231	D.	D.	—	Cumberland -	—	—
23	130·0	13	62·5	36	251	110·9	197	72·8	448	93·9	—	—			
10	D.	10	D.	20	112	D.	104	D.	216	D.	—	D.			
4	—	5	—	9	30	—	23	—	53	—	—	—			
—	—	—	—	—	23	D.	16	D.	39	D.	D.	—	Northumberland	15	61
—	—	—	—	—	30	30·4	7	D.	37	D.	—	—			
2	—	2	—	4	93	210·0	31	342·8	124	235·1	—	217·9			
12	—	9	—	21	35	—	54	—	89	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—	Durham	70	—
—	—	—	—	—	77	—	85	—	162	—	—	—			
6	—	1	—	7	31	—	4	—	35	—	—	—			
3	D.	—	—	3	19	D.	—	—	19	D.	D.	—			
4	33·3	—	—	4	111	484·2	216	—	327	—	—	—	Derby -	150	50
20	400·0	10	—	30	159	43·2	151	D.	310	D.	—	1,526·3			
18	—	9	—	27	146	—	50	—	196	—	—	—			
19	5·5	10	11·1	29	232	58·9	72	44·0	304	55·1	55·1	—	Denbigh	—	100
15	D.	4	D.	19	226	D.	26	D.	252	D.	—	—			
24	60·0	16	300·0	40	240	6·1	82	215·3	322	27·7	—	5·9			
2	—	—	—	2	19	—	8	—	27	—	—	—			
1	D.	1	—	2	4	D.	4	D.	8	D.	D.	—	Radnor -	12	12
4	—	—	—	4	32	700·0	25	525·0	57	612·5	—	—			
—	—	—	—	—	27	D.	13	D.	40	D.	—	400·0			
115	—	59	—	174	507	—	216	—	723	—	—	—			
20	D.	13	D.	33	388	D.	166	D.	554	D.	D.	—	Montgomery	39	260
22	10·0	13	D.	35	476	22·7	205	23·4	681	22·9	—	—			
44	100·0	23	76·9	67	448	D.	355	73·1	803	17·9	—	44·9			
12	—	15	—	27	75	—	59	—	134	—	—	—			
2	D.	3	—	5	71	D.	42	D.	113	D.	D.	—	Merioneth	—	—
6	200·0	—	—	6	102	43·6	42	—	144	27·4	—	—			
4	D.	1	—	5	105	2·9	26	D.	131	D.	—	15·9			
11	—	1	—	12	33	—	3	—	36	—	—	—			
1	D.	—	—	1	32	D.	10	233·3	42	16·6	16·6	—	Cardigan	—	112
2	100·0	—	—	2	28	D.	16	60·0	44	4·7	—	—			
7	250·0	14	—	21	88	214·2	97	506·2	185	320·4	—	340·4			

WOOLLENS.—ENGLAND—*continued.*

Years.	Factories.															Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Gigs.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	—	—
1850	17	—	—	—	—	—	—	—	—	—	—	—	1	—	18	D.	—
1856	17	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—
1862	37	117·6	4,223	—	—	—	—	—	—	—	—	1	—	—	37	—	105·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—
1850	9	—	—	—	—	—	—	—	—	—	—	—	—	—	9	D.	—
1856	9	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1862	6	D.	712	—	—	4	—	4	1	—	—	—	—	—	7	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	D.	—
1856	2	D.	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	440	—	—	—	—	—	—	—	—	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	D.	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	2	D.	82	—	—	—	—	—	—	—	—	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1850	9	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1856	7	D.	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1862	6	D.	882	—	—	—	—	—	—	—	—	—	—	—	6	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	—	—
1850	30	—	—	—	—	—	—	—	—	—	—	—	1	—	31	93·7	—
1856	26	D.	—	—	—	—	—	—	—	—	—	—	—	—	26	—	—
1862	30	15·3	3,869	—	—	—	—	—	—	—	—	—	—	—	30	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
1850	8	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
1856	9	12·5	—	—	—	50	—	—	1	—	—	—	—	—	10	—	—
1862	7	D.	7,939	—	—	78	56·0	76	2	—	—	2	—	—	9	—	12·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125	—	—
1850	49	—	—	—	—	224	—	—	11	—	—	—	20	—	80	D.	—
1856	28	D.	—	1	—	421	87·9	—	18	63·6	—	—	17	D.	64	—	—
1862	13	D.	59,986	—	—	618	46·7	600	22	22·2	4	233	10	D.	49	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54	—	—
1850	22	—	—	—	—	170	—	—	7	—	—	—	7	—	36	D.	—
1856	12	D.	—	—	—	252	48·2	—	11	57·1	—	—	4	D.	27	—	—
1862	13	8·3	44,825	—	—	549	117·8	556	16	45·4	—	192	3	D.	32	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	1	—	3	50·0	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1862	—	—	436	—	—	8	—	8	1	—	—	2	—	—	1	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41	—	—
1850	13	—	—	—	—	16	—	—	1	—	—	—	—	—	14	D.	—
1856	14	7·7	—	—	—	93	481·2	—	3	—	—	—	—	—	17	—	—
1862	7	D.	12,585	—	—	255	174·1	178	8	166·6	—	5	1	—	16	—	14·2
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
1850	4	—	—	—	—	12	—	—	1	—	—	—	—	—	5	D.	—
1856	1	D.	—	—	—	27	125·0	—	2	—	—	—	—	—	3	—	—
1862	1	—	1,350	—	—	28	3·7	28	2	—	—	2	—	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	16	—	895	—	—	—	—	—	—	—	—	—	—	—	16	—	—

WOOLLENS.—ENGLAND—*continued.*

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
19	—	11	—	30	72	—	25	—	97	—	—	—	Carmarthen	—	151
1	D.	2	D.	3	61	D.	26	D.	87	D.	D.	—			
—	—	3	—	3	53	D.	33	26·9	86	D.	—	—			
10	—	2	—	12	145	173·5	75	127·2	220	272·0	—	152·8			
11	—	5	—	16	48	—	34	—	82	—	D.	—	Brecon	—	24
1	—	—	—	1	46	D.	22	D.	68	D.	D.	—			
5	—	—	—	5	44	D.	15	D.	59	D.	—	—			
3	D.	3	—	6	63	43·1	6	D.	69	16·9	—	1·4			
3	—	—	—	3	63	—	4	—	57	—	—	—	Salop	—	14
—	—	—	—	—	38	D.	12	200·0	50	D.	D.	—			
—	—	—	—	—	18	D.	3	D.	21	D.	—	—			
—	—	—	—	—	12	D.	4	33·3	16	D.	—	D.			
7	—	1	—	8	23	—	5	—	28	—	—	—	Hereford	—	8
—	—	—	—	—	9	D.	2	D.	11	D.	D.	—			
—	—	—	—	—	10	11·1	2	—	12	9·0	—	—			
—	—	—	—	—	4	D.	2	—	6	D.	—	D.			
11	—	14	—	25	34	—	37	—	71	—	—	—	Monmouth	7	20
—	—	3	D.	3	73	114·7	47	27·0	120	69·0	69·0	—			
2	—	8	—	11	50	D.	36	D.	86	D.	—	—			
1	—	—	—	1	51	2·0	31	D.	81	D.	—	D.			
21	—	29	—	50	58	—	83	—	141	—	—	—	Glamorgan	22	118
9	D.	5	D.	14	141	143·1	109	31·3	250	77·3	77·3	—			
13	—	18	—	31	115	D.	103	D.	218	D.	—	—			
7	D.	4	D.	11	183	59·1	132	28·1	315	44·4	—	26·0			
16	—	10	—	26	170	—	119	—	289	—	—	—	Oxford	180	125
—	—	2	D.	2	178	4·7	128	7·5	306	5·8	5·8	—			
5	—	6	200	11	235	32·0	226	76·5	461	50·6	—	—			
18	260·0	15	150	33	300	27·6	314	38·9	614	33·1	—	100·6			
59	—	32	—	91	2,678	—	2,837	—	5,515	—	—	—	Gloucester	1,079	1,109
22	D.	18	D.	40	2,756	2·9	3,287	15·8	6,043	9·5	9·5	—			
67	204·5	39	116·6	106	2,397	D.	3,012	D.	5,409	D.	—	—			
42	D.	17	D.	59	2,051	D.	2,636	D.	4,687	D.	—	D.			
36	—	20	—	56	1,976	—	1,242	—	3,218	—	—	—	Wilts	929	133
—	—	—	—	—	1,718	D.	1,159	D.	2,877	D.	D.	—			
2	—	6	—	8	1,430	D.	1,279	10·3	2,709	D.	—	—			
23	—	3	—	26	1,630	13·9	1,500	17·2	3,130	15·5	—	8·7			
8	—	1	—	9	29	—	29	—	58	—	—	—	Dorset	—	40
—	—	—	—	—	21	D.	38	31·0	59	1·7	1·7	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	13	D.	24	D.	37	D.	—	D.			
74	—	212	—	286	360	—	1,450	—	1,810	—	—	—	Devon	40	277
—	—	—	—	—	168	D.	599	D.	767	D.	D.	—			
1	—	7	—	8	307	82·7	943	57·4	1,250	62·8	—	—			
8	—	22	—	30	186	D.	488	D.	674	D.	—	D.			
—	—	1	—	1	9	—	197	—	206	—	—	—	Cornwall	3	41
—	—	—	—	—	7	D.	84	D.	91	D.	D.	—			
—	—	—	—	—	7	—	73	D.	80	D.	—	—			
—	—	—	—	—	6	D.	75	2·7	81	1·2	—	D.			
—	—	—	—	—	6	—	4	—	10	—	—	—	Essex	—	—
—	—	1	—	4	57	—	6	—	63	—	—	—	Anglesea	—	42

WOOLLENS.—ENGLAND—*continued.*

Years.	Factories.																Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Gigs.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	96	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	99	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	4	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	D.	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	3	—	4	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	7	133·3	7	—	133·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	3	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	6	—	8	100	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	6	—	6	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	8	33·3	8	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	5	—	—	—	—	—	—	—	—	—	—	—	1	—	6	—	—
1856	20	300·0	—	2	—	—	—	—	—	—	—	—	4	300·0	26	—	—
1862	7	D.	6,360	—	—	—	—	—	—	—	—	—	—	—	7	D.	16·6
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	8	—	—	—	—	—	—	—	—	—	—	—	1	—	9	—	—
1856	11	37·5	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—
1862	5	D.	1,307	—	—	—	—	—	—	—	—	—	—	—	5	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	31	—	—
1850	18	—	—	—	—	27	—	—	3	—	—	—	10	—	31	—	—
1856	13	D.	—	—	—	251	827·6	—	7	133·3	—	—	4	D.	24	—	—
1862	11	D.	31,401	1	—	401	59·7	274	9	28·5	—	69	5	25·0	26	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	—	—	—	—	—	70	—	—	2	—	—	—	—	—	2	—	—
1862	4	—	5,280	3	—	70	—	60	—	—	—	—	—	—	7	—	—
1856	1	—	520	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	25	—	958	—	—	—	—	—	—	—	—	—	—	—	25	—	—
1862	2	—	5,998	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—

WOOLLENS.—ENGLAND—*continued.*

Persons employed.												Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.											
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.		1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	—	—	—	5	—	9	—	14	—		—	—	Hants	—	2
—	—	—	—	—	5	—	1	D.	6	D.		D.	—			
—	—	—	—	—	5	—	1	—	6	—		—	—			
—	—	—	—	—	5	—	4	—	9	50·0		—	50·0			
—	—	—	—	—	4	—	12	—	16	—		—	—	Kent	—	—
—	—	—	—	—	9	—	3	—	12	—		—	—	Lincoln	—	10
—	—	—	—	—	9	—	5	—	14	D.		D.	—			
—	—	—	—	—	4	D.	—	—	4	D.		—	—			
—	—	—	—	—	3	D.	—	—	3	D.		—	D.			
—	—	—	—	—	11	—	9	—	20	—		—	—	Middlesex	89	—
—	—	—	—	—	58	427·2	12	33·3	70	250·0		250·0	—			
—	—	—	—	—	63	8·6	20	66·6	83	18·5		—	—			
—	—	—	—	—	174	176·1	35	75·0	209	151·3		—	198·5			
15	—	5	—	20	83	—	38	—	121	—		—	—	Norfolk	8	—
—	—	—	—	—	29	D.	13	D.	42	D.		D.	—			
3	—	6	—	9	11	—	14	—	25	—		—	—	Northampton	—	—
3	—	—	—	3	63	—	7	—	70	—		—	—	Surrey	71	30
—	—	—	—	—	119	88·8	7	—	126	80·0		80·0	—			
—	—	—	—	—	126	5·8	27	285·7	153	21·4		—	—			
—	—	—	—	—	150	19·0	18	D.	168	9·7		—	33·3			
—	—	—	—	—	—	—	—	—	—	—		—	—	Leicester	138	—
1	—	1	—	2	31	—	54	—	85	—		—	—			
—	—	—	—	—	647	—	865	—	1,512	—		—	—			
—	—	2	—	2	141	D.	176	D.	317	D.		—	272·9			
—	—	—	—	—	—	—	—	—	—	—		—	—	Pembroke	—	79
—	—	—	—	—	24	—	4	—	28	—		—	—			
3	—	1	—	4	25	4·1	7	75·0	32	14·2		—	—			
6	100·0	—	—	6	106	324·0	25	257·1	131	309·3		—	367·8			
113	100·0	66	—	179	1,188	—	945	—	2,133	—		—	—	Somerset	335	297
9	D.	4	D.	13	1,121	D.	1,054	11·5	2,175	1·9		1·9	—			
2	D.	2	D.	4	826	D.	1,017	D.	1,843	D.		—	—			
28	—	8	—	36	1,132	37·0	1,135	11·5	2,267	23·0		—	4·2			
—	—	—	—	—	—	—	—	—	—	—		—	—	Flint	12	38
—	—	—	—	—	57	—	115	—	172	—		—	—			
4	—	—	—	4	69	21·0	117	1·7	186	8·1		—	—			
—	—	—	—	—	11	—	19	—	30	—		—	—	Stafford	8	6
4	—	6	—	10	73	—	21	—	94	—		—	—	Caernarvon	—	55
5	—	2	—	7	79	—	81	—	159	—		—	—	Nottingham	55	—
2	—	1	—	3	3	—	4	—	7	—		—	—	Worcester	6	—

WOOLLENS.—SCOTLAND.

Years.	Factories.														Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Gigs.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	8	—	—	—	—	—	—	—	—	—	—	—	—	8	166·6	—
1856	3	D.	—	—	—	—	—	—	—	—	2	—	—	5	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	3	50	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	1	D.	936	—	—	7	—	—	1	—	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	18	—	—
1850	16	—	—	—	—	—	—	—	—	—	—	—	—	16	D.	—
1856	18	12·5	—	—	—	—	—	—	—	—	—	—	—	18	—	—
1862	11	D.	3,412	1	—	21	—	42	1	—	—	—	2	13	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	—	—	5	—	—	1	—	—	—	—	1	—	—
1860	—	—	468	—	—	10	100·0	10	1	—	—	—	1	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	—	4	100	—
1856	6	50·0	—	—	—	—	—	—	—	—	—	—	—	6	—	—
1860	4	D.	6,910	—	—	—	—	—	—	—	—	—	—	4	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	5	—	—	—	—	—	—	—	—	—	—	—	—	5	66·6	—
1856	5	—	—	—	—	12	—	—	1	—	—	—	—	6	—	—
1862	2	D.	21,310	2	—	149	—	146	3	200·0	—	—	5	7	—	40·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—
1850	20	—	—	—	—	2	—	—	2	—	—	—	—	22	266·6	—
1856	24	20·0	—	—	—	19	—	—	1	—	—	—	—	25	—	—
1862	19	D.	32,950	—	—	64	236·3	57	4	300·0	—	—	2	23	—	4·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	26	—	—
1850	20	—	—	1	—	12	—	—	2	—	—	—	—	23	D.	—
1856	14	D.	—	—	—	122	916·6	—	4	100·0	—	—	—	18	—	—
1862	10	D.	—	—	—	214	75·4	195	5	25·0	—	—	4	15	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	4	—	—	—	—	32	—	—	1	—	—	—	—	5	400·0	—
1856	4	—	—	—	—	32	—	—	1	—	—	—	—	5	—	—
1862	3	D.	3,552	—	—	50	56·2	32	2	100·0	—	—	3	5	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—
1850	16	—	—	—	—	109	—	—	5	—	—	—	—	21	23·5	—
1856	15	D.	—	—	—	168	54·1	—	9	80·0	—	—	—	24	—	—
1862	7	D.	60,747	—	—	300	78·5	257	14	54·4	—	—	28	21	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—
1850	16	—	—	—	—	124	—	—	8	—	—	—	—	15	D.	—
1856	9	D.	—	—	—	—	—	—	—	—	—	—	—	M	—	—
1862	8	D.	46,368	—	—	158	—	158	8	—	—	—	16	16	—	6·6
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	2	100·0	—
1856	2	—	—	1	—	34	—	—	—	—	—	—	—	4	—	—
1862	1	D.	3,390	1	—	62	82·3	50	1	—	—	—	—	3	—	50·0

WOOLLENS.—SCOTLAND.

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
2	—	—	—	2	300	—	275	—	575	—	—	—	Lanark -	—	—
—	—	—	—	—	115	D.	372	35·2	487	D.	D.	—			
—	—	3	—	3	284	146·9	446	19·8	730	49·8	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
1	—	—	—	1	18	—	23	—	41	—	—	—	Renfrew	—	27
—	—	—	—	—	29	61·1	37	60·8	66	60·9	60·9	—			
5	—	3	—	15	40	37·9	47	27·0	87	31·8	—	—			
—	—	—	—	—	24	D.	16	D.	40	D.	—	D.			
21	—	13	—	34	193	—	242	—	435	—	—	—	Ayr -	68	54
3	D.	6	D.	9	127	D.	186	D.	313	D.	D.	—			
5	66·6	1	D.	6	137	7·8	290	55·9	427	36·4	—	—			
—	—	—	—	—	180	31·3	156	D.	336	D.	—	7·3			
—	—	1	—	1	26	—	13	—	39	—	—	—	Wigton -	—	15
—	—	—	—	—	22	D.	6	D.	28	D.	—	—			
—	—	—	—	—	17	D.	12	100·0	29	3·5	—	—			
—	—	—	—	—	15	D.	17	41·6	34	17·2	—	21·4			
2	—	3	—	5	34	—	14	—	48	—	—	—	Kircud-bright	29	21
2	—	2	—	4	15	D.	12	D.	27	D.	D.	—			
—	—	—	—	—	38	153·3	30	150	68	151·8	—	—			
—	—	—	—	—	32	D.	19	D.	51	D.	—	88·8			
4	—	2	—	6	31	—	47	—	78	—	—	—	Dumfries	213	40
—	—	—	—	—	184	493·5	125	165·9	309	296·1	296·1	—			
—	—	—	—	—	230	25·0	168	34·4	398	28·8	—	—			
—	—	—	—	—	489	112·6	436	159·5	925	132·4	—	199·3			
—	—	—	—	—	8	—	1	—	9	—	—	—	Linlith-gow -	—	—
—	—	—	—	—	2	—	—	—	2	—	—	—			
11	—	15	—	26	180	—	147	—	327	—	—	—	Stirling -	232	163
—	—	—	—	—	782	334·4	614	317·5	1,396	326·9	326·9	—			
—	—	—	—	—	391	D.	420	D.	811	D.	—	—			
—	—	—	—	—	338	D.	364	D.	702	D.	—	D.			
15	—	8	—	23	747	—	336	—	1,083	—	—	—	Clack-mannan	289	281
—	—	—	—	—	1,306	74·8	967	187·7	2,273	109·8	109·8	—			
—	—	—	—	—	929	D.	904	D.	1,833	D.	—	—			
—	—	—	—	—	784	D.	811	D.	1,595	D.	—	D.			
—	—	—	—	—	23	—	7	—	30	—	—	—	Berwick	30	30
2	—	1	—	3	41	78·2	30	—	71	136·6	136·6	—			
—	—	1	D.	1	64	D.	38	26·6	102	43·6	—	—			
2	—	1	—	3	58	D.	46	21·0	104	1·9	—	46·4			
3	—	10	—	13	316	—	324	—	640	—	—	—	Rox-burgh	265	366
4	33·3	3	D.	7	689	118·0	589	81·7	1,278	99·6	99·6	—			
—	—	—	—	—	961	39·4	778	32·0	1,739	36·0	—	—			
16	—	5	—	21	1,146	19·2	881	13·2	2,027	16·5	—	58·6			
29	—	28	—	57	297	—	109	—	406	—	—	—	Selkirk -	202	308
9	D.	2	D.	11	765	157·2	352	222·9	1,117	175·1	175·1	—			
5	D.	1	D.	6	764	D.	527	49·7	1,291	14·6	—	—			
—	—	—	—	—	878	14·9	674	27·8	1,552	20·2	—	38·9			
4	—	4	—	8	22	—	10	—	32	—	—	—	Edin-burgh	48	24
—	—	—	—	—	38	72·7	19	90·0	57	78·1	78·1	—			
—	—	—	—	—	105	176·3	38	D.	143	150·8	—	—			
—	—	—	—	—	123	17·1	145	281·5	268	87·4	—	370·1			

WOOLLENS.—SCOTLAND—*continued.*

Years.	Factories.														Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Gigs.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	26	—	—	2	—	—	—	—	2	100	—
1856	—	—	—	—	—	35	34·6	—	2	—	—	—	—	2	—	—
1862	1	—	2,616	—	—	41	17·1	33	2	—	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
1850	14	—	—	—	—	—	—	—	—	—	—	—	—	14	75·0	—
1856	18	28·5	—	—	—	—	—	—	—	—	—	—	—	18	—	—
1862	16	D.	16,353	—	—	—	—	—	—	—	—	—	1	16	—	14·2
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	2	100	—
1856	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	3	50·0	360	—	—	—	—	—	—	—	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	3	200·0	—
1856	5	66·6	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1862	4	D.	1,772	—	—	6	—	7	1	—	—	—	—	5	—	66·6
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1850	19	—	—	—	—	—	—	—	3	—	—	—	—	22	214·2	—
1856	14	D.	—	—	—	59	—	—	4	33·3	—	—	—	18	—	—
1862	20	42·8	—	1	—	93	57·6	95	4	—	—	—	6	25	—	13·6
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	108	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	1	D.	1,690	—	—	5	—	5	1	—	—	—	1	2	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	1	D.	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	2	100·0	3,308	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	3	—	—	1	—	—	—	—	2	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1856	4	—	—	—	—	36	—	—	2	—	—	—	—	6	—	—
1862	3	D.	51,142	1	—	101	180·5	80	3	50·0	—	—	2	7	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	2	—	—	—	—	12	—	—	1	—	—	—	—	3	—	—
1862	2	—	1,310	—	—	10	—	10	1	—	—	—	1	3	—	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	3	—	174	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	3	—	—	—	—	7	—	—	1	—	—	—	—	4	—	—
1862	1	—	2,320	—	—	12	—	12	2	—	—	—	1	3	D.	—
1862	1	—	168	—	—	—	—	—	—	—	—	—	—	1	—	—

WOOLLENS.—SCOTLAND—*continued.*

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	2	—	2	10	—	7	—	17	—	—	—	Fife	—	58
—	—	—	—	—	25	150·0	34	385·7	59	247·0	247·0	—			
—	—	—	—	—	28	12·0	44	29·4	72	22·0	—	—			
—	—	—	—	—	77	175·0	82	86·3	159	120·8	—	169·4			
—	—	—	—	—	123	—	104	—	227	—	—	—	Perth	52	158
—	—	—	—	—	143	16·2	91	D.	234	3·0	1·7	—			
3	—	—	—	3	235	64·3	101	10·9	336	43·5	—	—			
1	—	—	—	1	261	11·0	173	71·2	434	29·1	—	85·4			
1	—	3	—	4	2	—	5	—	7	—	—	—	Forfar	—	15
—	—	—	—	—	9	350·0	5	—	14	100·0	100·0	—			
—	—	—	—	—	9	—	5	—	14	—	—	—			
—	—	—	—	—	7	D.	2	D.	9	D.	—	D.			
1	—	—	—	1	4	—	—	—	4	—	—	—	Kincardine	—	36
—	—	—	—	—	25	525·0	15	—	40	900·0	900·0	—			
—	—	—	—	—	43	72·0	16	6·6	59	47·5	—	—			
—	—	—	—	—	47	9·3	24	50·0	71	20·3	—	77·5			
44	—	31	—	75	220	—	863	—	1,083	—	—	—	Aberdeen	621	337
14	D.	15	D.	29	473	115·0	837	D.	1,310	20·9	20·9	—			
9	D.	6	D.	15	272	D.	299	D.	571	D.	—	—			
2	D.	1	D.	3	310	13·9	392	31·1	702	22·9	—	D.			
—	—	—	—	—	3	—	—	—	3	—	—	—	Haddington	6	—
—	—	—	—	—	2	D.	—	—	2	D.	—	—			
—	—	—	—	—	2	—	—	—	2	—	—	D.			
—	—	—	—	—	54	—	33	—	87	—	—	—	Inverness	10	50
—	—	—	—	—	53	D.	18	D.	91	4·5	—	—			
—	—	—	—	—	59	11·3	56	211·1	115	26·3	—	32·1			
—	—	—	—	—	34	—	18	—	52	—	—	—	Kinross	25	12
—	—	—	—	—	28	D.	14	D.	42	D.	—	—			
—	—	—	—	—	27	D.	19	35·7	46	9·5	—	D.			
—	—	—	—	—	44	—	10	—	54	—	—	—	Moray	—	—
3	—	1	—	4	122	—	56	—	178	—	—	—	Peebles	36	250
2	D.	0	D.	2	203	66·3	76	35·7	279	56·7	—	—			
—	—	—	—	—	251	23·6	212	178·9	463	65·9	—	160·1			
—	—	—	—	—	5	—	4	—	9	—	—	—	Ross	15	12
—	—	—	—	—	38	—	27	—	65	622·2	—	—			
—	—	—	—	—	34	D.	31	14·8	65	—	—	622·2			
2	—	—	—	2	12	—	3	—	15	—	—	—	Banff	—	9
—	—	—	—	—	8	D.	3	—	12	D.	—	—			
—	—	—	—	—	59	—	17	—	76	—	—	—	Elgin	12	26
—	—	—	—	—	55	D.	38	123·5	93	22·3	—	—			
—	—	—	—	—	5	—	2	—	7	—	—	—	Sutherland	10	—

WOOLLENS.—IRELAND.

Years.	Factories.															Increase per Cent.	
	Spinning.	Increase per Cent.	Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number Power-looms Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Gigs.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2	D.	—
1856	7	250·0	—	—	—	26	—	—	2	—	—	—	—	—	9	—	—
1862	—	—	6,036	—	—	37	42·3	33	8	300·0	—	9	—	—	8	—	300·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	—	—	—	—	—	10	—	—	1	—	—	—	—	—	1	D.	—
1856	5	—	—	—	—	12	20·0	—	1	—	—	—	—	—	6	—	—
1862	6	20·0	1,480	—	—	12	—	12	1	—	—	2	—	—	7	—	600·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	4	300·0	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	9	125·0	2,752	—	—	—	—	—	—	—	—	—	—	—	9	—	800·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	2	100·0	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	1	D.	120	—	—	—	—	—	—	—	—	1	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	D.	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	3	—	1,550	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	2	—	—	—	—	24	—	—	1	—	—	—	—	—	3	—	—
1862	2	—	2,760	—	—	49	104·1	21	2	—	—	2	—	—	4	—	300·0
1862	1	—	540	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	2	—	376	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	668	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	—	—	1,692	—	—	25	—	25	2	—	—	3	—	—	2	—	—

WOOLLENS.—IRELAND.

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	1	—	1	334	—	246	—	580	—	—	—	Dublin	—	178
—	—	—	—	—	32	D.	25	D.	57	D.	D.	—			
—	—	—	—	—	137	328·4	93	272·0	230	303·5	—	—			
—	—	—	—	—	125	D.	110	18·2	235	2·1	—	312·2			
—	—	—	—	—	26	—	6	—	32	—	—	—	Kildare	—	—
4	—	—	—	4	10	—	3	—	13	—	—	—	Wicklow	—	—
—	—	—	—	—	46	—	41	—	87	—	—	—	Kilkenny	—	120
—	—	—	—	—	24	D.	33	D.	57	D.	D.	—			
—	—	—	—	—	60	150·0	92	178·7	152	166·6	—	—			
—	—	—	—	—	53	D.	73	D.	126	D.	—	121·0			
—	—	—	—	—	71	—	117	—	188	—	—	—	Cork	—	83
—	—	—	—	—	67	D.	120	2·5	187	D.	D.	—			
—	—	—	—	—	66	D.	76	D.	142	D.	—	—			
—	—	—	—	—	77	16·6	77	1·3	154	8·4	—	D.			
—	—	—	—	—	36	—	20	—	56	—	—	—	King's	—	20
—	—	—	—	—	13	D.	12	D.	25	D.	D.	—			
—	—	—	—	—	40	207·6	13	8·3	53	112·0	—	—			
—	—	—	—	—	17	D.	9	D.	26	D.	—	4·0			
—	—	1	—	1	97	—	178	—	275	—	—	—	Queen's	16	43
—	—	—	—	—	85	D.	92	D.	177	D.	D.	—			
1	—	—	—	1	20	D.	25	D.	45	D.	—	—			
—	—	—	—	—	18	D.	22	D.	40	D.	—	D.			
—	—	—	—	—	24	—	26	—	50	—	—	—	Waterford.	—	—
—	—	—	—	—	20	D.	39	50·0	59	18·0	—	—			
—	—	—	—	—	41	105·0	52	33·3	93	57·6	—	86·0			
—	—	—	—	—	10	—	4	—	14	—	—	—	Fermanagh	—	10
—	—	—	—	—	9	—	7	—	16	—	—	—	Limerick	—	50
—	—	—	—	—	27	—	13	—	40	—	—	—	Meath	—	25
—	—	—	—	—	68	—	50	—	118	—	—	—	Westmeath	32	—

The Worsted Trade.

The figures in the worsted trade, present also the same errors in the returns for 1850 and 1856, as those which have been pointed out and observed upon, in the cotton and woollen trades. The total number of spindles amounts to 1,289,172. The number of mills increased only 9·8 per cent. between 1839 and 1850, and only 6·1 per cent. after that period. I consider indeed that the worsted trade attained its maximum point in 1856, or at least till the supply of wool is rendered more certain, and until we know how many sheep there are in this country. If we include the doubling spindles, we find the gross number of spindles as follows:—

In 1850	- - -	875,830
In 1856	- - -	1,324,549 Increase 51·2 per cent.
In 1862	- - -	1,289,172 Decrease 2·7.

But deducting the doubling from the spinning spindles in 1856, the spinning spindles since then have been almost stationary. We should however add, that to whatever increase there is since 1850, in many instances the speed both of the spindle and loom is doubled. In like manner, the total number of persons employed was less in 1862 than in 1856, though the number of children introduced to work was greater, which shows that worsted production has also been cheapened by the difference in wages between infant and adolescent, or even adult labour in many instances.

Yorkshire is the great seat of the worsted trade. The total number of persons employed within the walls of worsted factories in the United Kingdom in 1862 was 86,063, and of these, upwards of 86·6 per cent. were employed in Yorkshire.

The worsted trade is found more or less in thirteen counties in England, in five in Scotland, and in three in Ireland. It has ceased in nine other counties in England, and is new in two. In Scotland it is new in two counties. Out of the thirteen counties in England where it is yet to be found, the number of mills has decreased in six since 1839. In Ireland they have decreased in two counties out of three, and disappeared in one; whilst in Scotland they have increased in all.

Its importance in the English counties, down to wherever 100 persons are employed in it, is in the following order:—

Counties.	Mills in 1862.	Persons employed,		Persons to a Factory.
		1839.	1862.	
York - - -	443	29,338	75,578	170
Worcester - - -	22	692	1,919	86
Leicester - - -	16	1,734	1,354	84
Norfolk - - -	11	385	1,283	116
Lancaster - - -	3	924	840	280
Durham - - -	3	432	511	170
Salop - - -	3	101	284	94
Devon - - -	5	0	130	26

In the Scotch counties it is as follows:—

Aberdeen - - -	5	0	1,475	295
Lanark - - -	3	0	613	204
Ayr - - -	6	0	441	73
Renfrew - - -	2	0	241	120
Clackmannan - -	3	0	146	48

In the Irish counties:—

Cork - - -	1	0	106	106

The consumption of wool for worsted purposes has been shown to be equivalent to 99,705,175 lbs. annually.

The worsted looms are estimated to be able to produce 147,977,500 yards of goods annually.

Of the worsted trade it may be said that it waits for the supply of raw material; but with a large supply it seems likely to be very greatly extended; and, though somewhat dependent upon fashion and fancy for the absorption of its goods, it is yet a manufacture for the many, and for most, if not all climates, whereby it will always command success. The rapidity of its increase between 1850 and 1856 was remarkable; and the historical difference between the time of Henry the 8th, when Parliament passed an Act, "That no "farmer should hold above two farms, nor keep above 2,400 "sheep, in consequence of the great decay of husbandry, "which threatened to depopulate the country, by reason of "the price of a good sheep having risen from 3*s.* to 6*s.*, and

" a stone of wool from 1*s.* 6*d.* to 4*s.* 8*d.*," and the price of wool at the present day, the demand for it, and the encouragement given everywhere to multiply flocks, is still more remarkable. It is within the last 60 years that small manufacturers of worsted goods annually migrated from the neighbourhood of Bradford to the agricultural districts around Wetherby, accompanied by a number of assistant labourers, carrying with them the worsted goods which they had manufactured during the winter season, to dispose of amongst the wealthy yeomen, whose broad acres of wheat they in turn reaped under contract, and whose wool they afterwards bought, and carried back to comb, and afterwards to have spun, in the houses of the poor on the borders of Knaresborough forest, and we now see to what magnitude it has attained. The worsted trade is also more remarkable, perhaps, than any other trade, for the ingenuity and beauty of its machinery, for the operations which that machinery performs, and for the relief which it has afforded to the manufacturers against the most formidable combinations of workmen. Within my official experience of nearly 30 years, the comber and the hand-loom weaver, both of whom were of the most turbulent and disorderly classes of workmen, ever combining against their masters for the most unreasonable purposes, and ever undermining the kindly feeling which ought always to exist between the employers and employed, have almost disappeared: a few hand-loom weavers here and there remain, but the existence of both classes lives but in the memory of those who are themselves dying out, and except in the history of the trade, they will soon be entirely forgotten.

The General Summary of the Worsted Trade in the United Kingdom is as follows :—

Years.	Factories.												Increase per Cent.		Persons employed.						Increase per Cent.		Indicated Horse Power employed.	
	Spinning Mills.	Increase per Cent.	Number of Spinning Mills.	Weaving Mills.	Increase per Cent.	Power Looms.	Power Loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.	Children.			Adults and Adolescents.			1839 to 1850.	1851 to 1862.	Steam.	Water.
															Males.	Females.	Total.	Males.	Females.	Total.				
1839	—	—	—	—	—	—	—	—	—	—	—	456	—	—	—	—	—	—	—	34,363	—	—	—	—
1850	230	—	875,830	97	—	32,617	—	155	—	19	—	501	9·8	—	4,237	5,719	9,956	27,117	52,620	79,737	132·4	—	—	—
1856	231	0·4	1,324,549	123	26·8	38,956	—	151	D	20	5·2	525	—	—	4,828	6,400	11,228	30,023	57,771	87,794	—	—	—	—
1862	219	D.	1,289,172	162	10·4	43,048	28,787	127	D	24	20·0	532	—	6·1	6,268	6,910	13,178	31,501	54,562	86,063	—	7·9	26,234	1,970

And there is to be seen, as has been stated, a decrease of spinning spindles in 1862, but an increase in the number of persons employed, which is not to be attributed so much to the enlargement of the existing mills as to the increase in the number of power looms, which in eleven years have increased upwards of 30 per cent.

WORSTED—ENGLAND.

Years.	Factories.												Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	13	—	—
1850	6	—	—	1	—	1,312	—	—	4	—	—	—	11	D.	—
1856	2	D.	—	2	100·0	2,365	80·2	—	5	25·0	—	—	9	—	—
1862	1	D.	13,944	1	D.	1,219	D.	401	1	D.	—	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	386	—	—
1850	163	—	—	90	—	30,856	—	—	149	—	16	—	418	8·2	—
1856	183	12·2	—	98	8·8	35,298	14·3	—	145	D.	19	18·7	445	—	—
1862	165	D.	1,149,072	137	39·7	40,577	14·9	27,380	122	D.	19	—	443	—	5·9
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	3	—	—	—	—	210	—	—	1	—	—	—	4	—	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1862	—	—	9,452	1	—	326	—	148	1	—	1	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	2	100·	—
1856	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	5,128	1	—	25	—	25	—	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1850	11	—	—	—	—	—	—	—	—	—	—	—	11	22·2	—
1856	10	D.	—	11	—	387	—	—	—	—	—	—	21	—	—
1862	7	D.	18,412	12	9·0	424	9·5	409	1	—	2	—	22	—	100·
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	26	—	—
1850	19	—	—	—	—	—	—	—	—	—	3	—	21	D.	—
1856	11	D.	—	1	—	—	—	—	—	—	—	—	12	—	—
1862	16	45·4	22,440	—	—	—	—	—	—	—	—	—	16	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	5	—	—	6	—	428	—	—	—	—	—	—	11	266·6	—
1856	5	—	—	5	—	349	D.	—	—	—	—	—	10	—	—
1862	6	20·0	20,438	5	—	397	13·7	373	—	—	—	—	11	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	—	—	1,520	—	—	—	—	—	—	—	1	—	1	—	—
1862	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	4	—	405	—	—	—	—	—	—	4	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	7	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1856	2	D.	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	5	150·0	3,900	—	—	—	—	—	—	—	—	—	5	—	D.
1862	1	—	168	—	—	—	—	—	—	—	—	—	1	—	—

WORSTED—ENGLAND.

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
33	—	35	—	68	337	—	587	—	924	—	—	—	Lancaster	390	—
97	193·9	87	148·5	184	891	164·3	930	55·4	1,821	97·0	97·0	—			
74	D.	86	D.	160	1,043	17·2	1,044	12·2	2,087	14·6	—	—			
9	D.	13	D.	22	286	D.	554	D.	840	D.	—	D.			
1,835	—	2,507	—	4,342	7,987	—	21,351	—	29,338	—	—	—	York -	23,102	1,455
4,084	122·5	5,552	121·0	9,626	23,758	197·4	47,147	120·8	70,905	141·6	141·6	—			
4,733	15·8	6,261	12·7	10,994	26,750	12·5	52,244	10·8	78,994	11·4	—	—			
6,193	30·8	6,783	8·3	12,976	27,497	2·7	48,081	D.	75,578	D.	—	6·5			
—	—	—	—	—	4	—	—	—	4	—	—	—	Northumberland	—	—
24	—	12	—	36	130	—	302	—	432	—	—	—	Durham -	300	—
44	83·3	56	366·6	100	198	52·3	568	88·0	766	77·0	77·0	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
17	—	16	—	33	127	—	384	—	511	—	—	D.			
—	—	—	—	—	1	—	—	—	1	—	—	—	Chester -	—	—
7	—	18	—	25	22	—	79	—	101	—	—	—	Salop -	44	20
—	—	—	—	—	39	77·2	166	110·0	205	102·9	102·9	—			
—	—	—	—	—	39	—	162	D.	201	D.	—	—			
—	—	—	—	—	102	161·5	182	12·3	284	41·2	—	38·5			
17	—	46	—	63	152	—	540	—	692	—	—	—	Worcester	618	54
—	—	—	—	—	415	173·0	557	3·1	972	40·4	40·4	—			
5	—	8	—	13	1,051	153·2	1,054	89·2	2,105	116·5	—	—			
13	—	7	D.	20	1,089	3·6	830	D.	1,919	D.	—	97·4			
—	—	—	—	—	56	—	80	—	136	—	—	—	Warwick	—	—
9	—	2	—	11	32	—	39	—	71	—	—	—	Derby -	—	—
35	—	45	—	80	662	—	1,072	—	1,734	—	—	—	Leicester	762	—
1	—	6	—	7	977	47·5	1,273	18·7	2,250	29·7	29·7	—			
—	—	—	—	—	350	D.	674	D.	1,024	D.	—	—			
—	—	—	—	—	393	12·2	961	42·5	1,354	32·2	—	D.			
2	—	2	—	4	3	—	6	—	9	—	—	—	Lincoln -	—	—
14	—	24	—	38	86	—	299	—	385	—	—	—	Norfolk -	278	10
2	D.	4	D.	6	318	269·6	1,082	261·8	1,400	263·6	263·6	—			
2	—	10	150·0	12	191	D.	996	D.	1,187	D.	—	—			
26	—	59	490·0	85	261	36·6	1,022	2·6	1,283	8·0	—	D.			
5	—	9	—	14	11	—	46	—	57	—	—	—	Northampton	—	—
—	—	—	—	—	150	—	213	—	363	—	—	—	Nottingham -	30	30
—	—	—	—	—	—	—	—	—	—	—	—	—			
1	—	—	—	1	7	—	—	—	7	—	—	—			
—	—	—	—	—	20	—	66	—	86	—	—	—			
—	—	—	—	—	51	—	65	—	116	—	—	—	Stafford -	—	—
—	—	—	—	—	13	D.	17	D.	30	D.	—	—			
10	—	13	—	23	289	—	610	—	899	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
1	—	2	—	3	59	—	247	—	306	—	—	—	Devon -	3	54
—	—	—	—	—	1	D.	19	D.	20	D.	—	—			
—	—	2	—	2	14	—	116	510·5	130	—	—	D.			
—	—	—	—	—	2	—	22	—	24	—	—	—	Somerset	—	12

WORSTED.—ENGLAND—*continued.*

Years.	Factories.													Increase. per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	2	D.	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	1,548	—	—	—	—	—	—	—	—	—	2	—	D.
1850	—	—	—	—	—	11	—	—	1	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	1,024	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1862	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—

WORSTED.—SCOTLAND.

1850	4	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1856	4	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	3	D.	7,690	—	—	—	—	—	—	—	—	—	6	—	5·0
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	11,748	4	—	33	—	33	—	—	—	—	5	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	2	—	135	—	—	—	—	—	—	3	—	100·0
1862	1	—	3,172	1	—	10	—	9	—	—	—	—	2	—	—
1862	1	—	9,800	—	—	37	—	11	2	—	—	—	3	—	—
1862	1	—	6,136	—	—	—	—	—	—	—	—	—	1	—	—

WORSTED.—IRELAND.

1850	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	1	D.	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	1,008	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	3,020	—	—	—	—	—	—	—	—	—	1	—	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	1	D.	672	—	—	—	—	—	—	—	—	—	1	—	—
1856	0	—	533	—	—	2	—	—	1	—	—	—	1	—	—

WORSTED.—ENGLAND—*continued.*

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water
—	—	—	—	—	2	—	3	—	5	—	—	—	Essex	—	—
—	—	—	—	—	2	—	3	—	5	—	—	—			
7	—	13	—	20	31	—	67	—	98	—	—	—	West-moreland	—	40
3	—	1	—	4	8	D.	33	D.	41	D.	—	—			
3	—	8	—	11	13	62·5	39	18·1	52	26·8	—	D.			
—	—	7	—	7	17	—	54	—	71	—	—	—	Surrey	22	—
—	—	19	171·4	19	11	D.	59	9·2	70	D.	—	—			
7	—	18	D.	25	16	45·4	68	15·2	84	20·0	—	18·3			
—	—	—	—	—	10	—	40	—	50	—	—	—	Oxford	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	6	—	2	—	8	—	—	—	Middlesex	2	—

WORSTED.—SCOTLAND.

—	—	—	—	—	78	—	230	—	308	—	—	—	Ayr	141	41
—	—	2	—	2	36	D.	215	D.	251	D.	—	—			
—	—	2	—	2	82	127·7	359	66·9	441	75·6	—	75·6			
1	—	2	—	3	225	—	78	—	303	—	—	—	Lanark	400	—
—	—	2	—	2	727	223·1	748	858·9	1,475	386·7	—	—			
—	—	—	—	—	51	—	84	—	135	—	—	—	Renfrew	—	130
—	—	—	—	—	66	29·4	207	146·4	273	102·2	—	—			
—	—	—	—	—	45	D.	196	D.	241	D.	—	78·5			
—	—	—	—	—	143	—	470	—	613	—	—	—	Aberdeen	50	—
—	—	—	—	—	76	—	70	—	146	—	—	—	Clack-mannan	42	5

WORSTED.—IRELAND.

—	—	—	—	—	25	—	51	—	76	—	—	—	Dublin	—	20
—	—	—	—	—	12	D.	24	D.	36	D.	—	—			
—	—	—	—	—	8	D.	32	33·3	40	11·1	—	D.			
—	—	—	—	—	13	—	68	—	81	—	—	—	Cork	—	45
—	—	—	—	—	26	100·0	80	17·6	106	30·8	—	—			
—	—	—	—	—	4	—	63	—	67	—	—	—	Queen's	—	12
—	—	—	—	—	2	D.	27	D.	29	D.	—	—			
—	—	—	—	—	5	—	20	—	5	—	—	—	Water-ford	—	5

The Flax Trade.

The Flax trade is found in 15 counties in England, in the following order of importance, wherever not less than 100 persons are employed in it, viz.:—

Counties.	Number of Mills in 1862.	Persons employed in		Persons to a Factory.
		1839.	1862.	
York	70	9,654	12,562	179
Lancaster	13	2,881	3,381	260
Cumberland	9	366	1,325	147
Somerset	13	720	708	54
Salop	1	801	656	656
Dorset	14	656	634	45
Westmoreland	3	449	303	101
Gloucester	2	139	154	77
Hants	2	86	133	66
Norfolk	1	—	130	130

It has disappeared since 1839 in Kent, Lincoln, Surrey, Wilts, Suffolk, and Worcester.

In Scotland it is found in nine counties, in the same order of importance.

Counties.	Number of Mills in 1862.	Persons employed in		Persons to a Factory.
		1839.	1862.	
Forfar	85	9,378	21,174	249
Fife	46	3,039	5,548	120
Aberdeen	1	2,938	2,175	2,175
Perth	15	601	1,477	98
Lanark	1	254	851	851
Ayr	3	272	797	265
Renfrew	2	606	592	296
Edinburgh	5	611	501	100

It has disappeared since 1839 in Linlithgow.

In Ireland it is found in 12 counties, also in the same order.

Counties.	Number of Mills in 1862.	Persons employed in		Persons to a Factory.
		1839.	1862.	
Antrim - - - -	47	5,976	19,026	404
Down - - - -	15	752	5,162	344
Armagh - - - -	15	518	3,582	238
Tyrone - - - -	7	159	1,487	212
Louth - - - -	3	589	1,348	449
Dublin - - - -	3	297	810	270
Kildare - - - -	3	205	704	234
Clare - - - -	1	—	497	497
Donegal - - - -	1	—	316	316
Monaghan - - -	3	139	258	86
Meath - - - -	1	29	177	177
Londonderry - - -	1	214	158	158

Of the three countries, Scotland employs the greatest number of workpeople; secondly, Ireland; and then England. In England, since 1839, the number of mills has decreased in 10 counties, and remained stationary in four. The trade has been newly introduced in one.

In Scotland, the number of mills has decreased in six counties; been stationary in two, and increased in one. The trade has disappeared in one.

In Ireland, the number of mills has increased in eight counties since 1839; been stationary in one, and decreased in one. The trade has been newly introduced in two.

The following is a Summary of the Total Number and Kind of Flax Mills in 1839, 1850, 1856, and 1862, in the United Kingdom, with the Number of Persons, and the Amount of Power employed therein:—

Country.	Years.	Spinning Mills.	Increase per Cent.	Number of Spindles.	Weaving Mills.	Increase per Cent.	Power Looms.	Power-loom Weavers.	Spinning and Weaving Mills.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Persons employed. Total.	Increase per Cent. 1839 to 1850.	Increase per Cent. 1851 to 1862.	Children. Males.	Children. Females.	Children. Total.	Adolescents and Adults. Males.	Adolescents and Adults. Females.	Adolescents and Adults. Total.	Increase per Cent. 1839 to 1850.	Increase per Cent. 1851 to 1862.	Indicated Horse-Power. Steam.	Indicated Horse-Power. Water.
England and Wales.	1839	—	—	—	—	—	—	—	—	—	—	—	180	—	—	—	—	—	—	—	16,822	—	—	—	—
	1850	100	—	—	10	—	1,083	—	12	—	13	—	135	D.	—	739	525	1,264	6,135	12,866	19,001	12·9	—	—	—
	1856	96	D.	441,769	19	90·0	—	—	17	41·6	7	—	139	—	—	683	584	1,267	6,166	13,621	19,787	—	6·8	—	—
	1862	89	D.	344,308	27	42·1	2,160	1,528	14	D.	6	D.	136	—	0·7	886	1,108	1,994	5,920	14,385	20,305	—	—	976	2,384
Scotland	1839	—	—	—	—	—	—	—	—	—	—	—	183	—	—	—	—	—	—	—	17,587	—	—	—	—
	1850	161	—	303,125	18	—	2,529	—	9	—	1	—	189	3·2	—	61	218	279	7,783	20,529	28,312	60·9	—	—	—
	1856	119	D.	278,304	25	38·8	4,011	—	17	88·8	7	600·0	168	—	—	118	308	426	8,331	23,391	31,722	—	18·6	12,512	994
	1862	84	D.	279,385	41	64·0	7,966	5,847	24	41·1	14	100·0	163	—	D.	304	573	877	8,743	24,856	33,599	—	—	—	—
Ireland.	1839	—	—	—	—	—	—	—	—	—	—	—	40	—	—	—	—	—	—	—	9,017	—	—	—	—
	1850	67	—	396,338	1	—	58	—	1	—	—	—	69	72·5	—	7	31	38	6,899	14,222	21,121	134·2	—	—	—
	1856	85	26·8	567,980	13	1200·0	1,691	—	9	800·0	3	—	110	59·4	—	52	61	113	8,949	19,604	28,873	—	58·7	10,710	2,384
	1862	60	D.	592,931	15	15·3	4,066	3,314	19	111·1	6	100·0	100	D.	44·9	226	442	668	9,963	23,572	33,525	—	—	—	—

in which it is seen, that in England the total number of mills greatly decreased between 1839 and 1850, and but very slightly increased between 1850 and 1862; whilst the number of persons employed increased in both periods.

In Scotland the number of mills increased in the former of these periods, but decreased in the latter; whilst the number of persons employed greatly increased in both.

In Ireland both the number of mills and of persons greatly increased in both periods. Thus it is found that in England the flax trade has held its ground, but made scanty progress during the last 11 years. In Scotland many small factories have been discontinued, and some others have been enlarged. In Ireland not only has the number of factories increased, and some have been enlarged, but the ratio of the population employed in them has increased also.

Again, in England, with reference to the spindles, their increase between 1850 and 1856 amounted to 66·3 per cent., whilst between 1856 and 1862 they apparently decreased 28·3 per cent.; and it is very probable that there was a decrease in the total number of spinning spindles at this period, but not so large as is represented by these figures; because in the returns for 1850 and 1856 the doubling spindles were included with the spinning spindles, whilst they are excluded from those for 1862.

In Scotland the spindles decreased generally, along with the number of mills, between 1850 and 1856, but show an increase in 1862, even with the abstraction of the doubling spindles; and this increase would have been greatly enhanced had not the mills for spinning hemp and jute been separated from flax mills in the last returns, instead of being associated with them as formerly; for, had they remained in their usual category, the net increase would have been as follows:—Mills, 17·7 per cent.; spindles, 11 per cent.; and persons employed, 24·7 per cent.

In Ireland the spindles increased, between 1850 and 1856, 45·8 per cent., but between 1856 and 1862 only 4·4 per cent.; but of the persons employed in all the countries and in all the four periods of comparison, *i.e.*, between 1839 and 1862, there are increases, to be accounted for to a considerable extent by the gradual abolition of the hand and by the introduction of the power loom and by the improvements in machinery.

With the exception of Ireland in 1862, all the spinning mills in the United Kingdom decreased in number between 1839 and 1862, but all the weaving mills increased most materially, and, with the exception of England in 1862, all the spinning and weaving mills also. The manufacture of linen cloth thus shows itself to have become a most important trade since 1839, and if the raw material could be had, would, doubtless, become vastly more so. In 1850 the number of linen power

looms in the United Kingdom was 3,670; in 1862 they amounted to 14,792, being an increase of upwards of 300 per cent.

The question, then, of the growth of flax, and especially at the present moment, when we are in a state of uncertainty about the growth of cotton, is one of considerable importance. In Ireland, whence we look for the largest amount of flax, though it is true the acreage sown has slightly increased this year, yet, with so large a portion of the trade within itself, and therefore with a full knowledge of the demand for raw material, that acreage has not increased in comparison with its capabilities.

In 1858 there were sown		91,646 acres.
1859	„	136,282 „
1860	„	128,592 „
1861	„	147,957 „
1862	„	150,912 „

In Scotland the growth of flax seriously decreased between 1856 and 1857, which is the last date of any published statistics which I can find on the subject.

In 1856 the quantity sown was 2,723½ acres, which was reduced in 1857 to - - 1,543¾ acres.

The imports of flax and tow have been as follows:—

In 1839 - -	137,054,512 lbs.
1850 - -	204,166,816 lbs.
1856 - -	190,068,592 lbs.
1862 - -	148,707,264 lbs.

So that since 1850 the imports have decreased. To arrive, however, at the supply, we must add to the imports for 1862, the product of the flax crops of the United Kingdom. Mr. Charley shows, in his recent work "On Flax," that on Mr. Coates' farm at Malone, in 1850, the produce of eight Irish acres was 379 stones of flax fibre, of 16 lbs. to the stone. The total product, therefore, of Ireland and Scotland, upon this data, and taking the growth in 1857 in Scotland for 1862, is as follows:—

Grown in Ireland, flax, 1861 - -	114,391,296 lbs.
„ Scotland „ „ - -	549,520 lbs.
Import of flax and tow - - -	148,707,264 lbs.
Total supply - - -	263,648,080 lbs.
England - - - - -	Unknown.

Then as to consumption. The nearest approximation to it

at which we can arrive is to consider the tow as flax spindles, and then to calculate as follows:—

Number of Spindles.	Produce per spindle in yards in 60 hours.	Yards in a Bundle.	Total produce in Bundles.	Weight per Bundle in lbs.	Total Weight of Flax in lbs.
1,216,674	× 20,000	÷ 60,000	= 405,555	× 10½	= 212,912,000

Messrs. Dewar of Cheapside estimate the annual average consumption to be 100,000 tons, while "we require," say they, "fully as much more."

There is thus a difference between the supply of and the demand for raw material, annually, of about 22,650 tons in favour of supply. But this amount of floating stock is exceedingly small, and it forms, perhaps, one of the reasons why the flax trade does not advance so rapidly as it is entitled to do, and why it is a trade in which, to use a trade phrase, "there is no comparative push." The fact is, we can neither procure from abroad, nor induce our farmers to grow, the raw material in sufficient quantity. The culture of flax has to contend with so many difficulties. There are leases which forbid it to be grown, in consequence of its exhaustive properties; there is the price of labour, which renders it expensive to gather; there is the cost of establishments for retting, and the means of getting rid of the water in which it has been steeped, without offence to the neighbourhood; and then, there are tariffs, which shut out its products from countries to which they would be a luxury. If, however, it is not a "pushing trade," like the cotton trade for example, its manufacturers have the singular advantage either of being wiser than their neighbours, or of not being pressed by the same necessity. They do not so largely send goods on consignment, *i.e.*, they do not glut both the home and foreign markets, and then ride over a panic. For the most part they wait for orders and execute them; and the panics they undergo arise more from the fluctuations of the seasons than from over production.

It is to Ireland at present, and eventually to India as well, that the flax spinners are looking for a supply of raw material, which, if ever the time arrives, is to render the flax trade one of comparative importance with cotton. Mr. Charley estimates the annual value of the linen products in the United Kingdom at 11,000,000*l.*, "two-thirds of which," says he, "are represented by the Irish linen trade." "Irish flax is undoubtedly the best," he adds, "but the variations referred to no doubt are chiefly caused by the comparative price of grain When grain brings a high price the breadth of crop under

" flax is diminished, while, if it remains at a low rate, the " farmer is naturally induced to sow more flax seed.

"But there is another influence working against an increase " of flax cultivation in Ireland, namely, the gradual introduc- " tion of the Scotch and English system of tillage farming on " a large scale. As farms increase in size, and labour becomes " dearer, it is probable flax will be even less grown. It is " essentially the small farmer's crop, sown by himself, and " cleaned, pulled, steeped, and even scutched by his wife and " children, for whom these occupations form a light and agree- " able kind of hand labour."

Respecting the Indian flax crop, the following paragraph, copied from the " Lahore Chronicle " of September 1862, is interesting:—

"The Indian Flax Crop.—We are glad to hear that the prospect of the flax crops of the present season is extremely encouraging in the Punjaub, where landed proprietors are beginning to discover that it is a paying article to grow. The average value of an acre of wheat, as compared with superior flax, being as 25 or 30 rupees to 42 or 45, there can be little doubt the cultivation will increase from year to year, and as the soil in many localities is excellently adapted for the growth, it will in time become an article of considerable importance to commerce. Mr. Wightman (the agent for an association at Belfast) has gathered about 200 maunds of flax grown from English seed in the neighbourhood of Sealkote, and the people are taking much interest in his proceedings, and desire to witness the operation of cutting and rippling the material, so that they may be able to learn how to do it themselves in the most approved manner. There is some idea of giving prizes early in September to those who succeed best in cultivating flax in the Sealkote district, and no doubt beneficial results will follow their delivery."

There are several associations, both in Ireland and England, for promoting the cultivation of flax. The following is one which refers to Munster:—

"Flax Culture in the South of Ireland.—The organized effort which is being made in Munster to extend the cultivation of flax is, for many reasons, worthy of liberal encouragement. Even without reference to the great manufacturing interests of the north, it is cheering to see gentlemen of influence and position forming themselves into a society whose object is to promote and improve the cultivation of a crop which, when judiciously managed, is highly remunerative to the farmer; but when we add to this general consideration the fact that the cultivation of a larger quantity of flax means an increase of our manufacturing prosperity, it is manifestly a great advantage to Ulster that the farmers of the south should be encouraged to turn their attention to the growth of flax. The Munster Flax Improvement Society

which has its head-quarters at Cork, has been doing a good work in the district over which its operations extend, and it deserves the support of all who take an interest in the object it was established to advance. From its report for the last year, which is now before us, it appears that the flax crop in Cork, Tipperary, and Clare, for that year, had increased through the agency of the society."

Subjoined is a notice of a similar association in Tipperary :—

"Tipperary Flax.—A sample of dressed flax from the county of Tipperary has been sent to our ("Cork Mail") office. It has been minutely examined by many persons connected with the trade, and by all has been pronounced to be of a most superior description, than which the north of Ireland could produce nothing better, and fully equal to the average of Belgian import. One excellent judge said that he never 'handled a finer sample of 'Irish flax.' This ought to show what *might* be done in the south and west of Ireland at this great epoch in the history of the Irish flax production. The purchaser of the stock from which this sample was taken gave for it, as it came from the grower, 15*s.* 6*d.* per stone of 16½ lbs,, and considers that he got good value. Farmers ought to take a note of this."—November 15, 1862.

And a third and fourth which exhibit similar influences at work in England :—

"Flax-growing in the Eastern Counties.—A movement has been set on foot to introduce the growth of flax into Suffolk, as one of the ordinary crops of the agricultural world. Sir Fitzroy Kelly, M.P., Mr. J. C. Cobbold, M.P., Mr. W. Rodwell, Mr. G. C. E. Bacon, Mr. Allen Ransome, and other gentlemen, are the promoters of the scheme, which has already received the sanction, so far as growing flax is concerned, of the Duke of Hamilton, the Earl of Stradbroke, Earl Howe, Sir Edward Kerrison, M.P., Mr. George Tomline, Mr. John Tollemache, Mr. P. R. Burrell, Colonel Anstruther, Mr. H. S. Bence, and other landed proprietors in the county. The committee in their report point out the local advantages of flax-growing to the farmer, and the national advantages and the peculiar appropriateness of the movement, now that thousands are starving for the want of cotton. Sanguine expectations are felt that the project will be successful, Sir F. Kelly having taken shares in a proposed rettery to the amount of 500*l.*, and Mr. J. C. Cobbold, M.P., and his banking partners to the same extent. Some of the farmers have also given in their adhesion, and that of the landlords generally to the scheme would secure success. It is proposed to raise a company with a capital of 20,000*l.*, the great desideratum being a certain market for the purchase when grown."

"Sir,—I was pleased to see a correspondent, 'G. M.' drawing attention to the culture of flax, now, in this our time of need, to supply the place of cotton. About twelve years ago the culture

of flax was first introduced into this locality, and since then, in consequence of a rettery at Eye, carried on by Messrs. Cheese Brothers, and one at Scole, Norfolk, by Messrs. Costerton and Nayler, the culture of flax has increased from tens to hundreds of acres, as the growers can find a near market for their straw, which is the great desideratum to induce the growth of flax. This year the crop here was good and remunerative, realising from 14*l.* to 17*l.* per acre. Many farmers prefer crushing the seed mixed with barley meal, and fattening their cattle upon it, to purchasing oilcake.—P.S. The two retteries above-named employ from 150 to 200 hands."

But the growth of flax suffers under the great disadvantage, in this country, of the high price of labour, and it may be feared that the same cause operates both in Scotland and Ireland; for although Mr. Charley shows, upon an average of eight farms, a clear profit of 8*l.* 17*s.* 6*d.*, an acre, we see how very small the increased acreage is even in the present year. Nay we may go further, for it appears that in the years between 1812 and 1825 the quantity of acres sown in Ireland averaged 132,423; whilst in the fifteen years between 1847 and 1861 the quantity only averaged 111,415 acres. In fact, in 1815 there were sown in Ireland 148,124 acres, and in 1861, 147,866 acres; and we may therefore fairly doubt whether there is anything which can reasonably be expected to advance the cultivation of flax in Ireland. And indeed before all the benefit which these societies are calculated to afford, is produced, it seems absolutely necessary that we should know what quantity of flax fibre grows to waste in England. I was surprised to learn that in one parish in Cambridgeshire, consisting of about 37,000 acres, 150 acres are grown annually, with respect to part of which one farmer writes:—
" I grow three or four acres every year. I cannot sell the
" fibre, because I can find no market for it, but use it for
" litter or thatch;" a reason which is, I believe, equally applicable to all the growers in the same neighbourhood. How many more parishes there are in England in which this valuable fibre is put to no account may be difficult to say, but it would be very desirable to know, not only for the sake of the manufacturers but of the farmers; for if the value of the fibre is equal to 5*l.* an acre, nett, at least 750*l.* a year is lost to this one parish, which it might as well enjoy. The following letter is well worth the reprint, since it gives somewhat of a new view of flax culture to that taken by tenant farmers in general:—

"Hints about the Cultivation of Flax.—A correspondent signing himself "Land Agent," writes the following letter to the 'Times':—Sir,—In your article on Friday you state that the bar to the cultivation of flax is the prohibition in leases. Having perused a large number of modern leases and agreements, I have

never observed the word 'flax,' and therefore, unless the crops to be sown are specified, any farmer may grow flax, so long as he leaves a good entry on quitting for the next tenant, and as both straw and seed can be sold off, he would be bound to return an equivalent in the shape of manure. The true reasons why flax is now so seldom grown are that its cultivation and preparation, being rather intricate, are not generally understood; the mills for extracting and converting the fibre are not equally distributed, and its cultivation was formerly prohibited, found unprofitable, and ultimately forgotten, from being such an exhausting crop, when the steep-water, seed, and woody fibre were all wasted; and thus, as in the case of cereals, not even the straw was returned to the land; but now the value for manure of the seed and waste portions of the crop are known, every prejudice on the ground of exhaustion must be removed, and the subject only requires to be properly brought before the various farmers' clubs, when our best and most spirited agriculturists will, no doubt, give flax, as they do every suggestion likely to prove profitable, a fair trial.'"

At the present moment there seems to be quite an effort making for the advance of the linen trade. There is a great demand in many districts for linen yarn for looms which have hitherto been wholly employed upon cotton goods, and various devices exist in order to blend both flax and cotton successfully in one fabric. Whether this state of things will continue or not, or for how long, is a matter which depends upon many circumstances; mainly, whether cotton will be found in sufficient quantities and qualities as to restore the balance of the cotton trade, or if not, whether the farmers of the United Kingdom, or of Europe, or of India, can be induced to cultivate sufficient flax to supply the deficiency either wholly or in part. Some of the manufacturers have a vague apprehension of an approaching panic; some have hopes that the trade is about to be greatly extended, but which are perhaps more wishes than expectations; for it must be remembered, that however the cotton of India may be unsuitable for many of the manufactures to which some kinds of American cotton have been applied, yet if it is produced in sufficient quantities and at a cheap rate, it will certainly supersede tow in many of the products (in carpets for example) in which it is now largely used, and in all probability in the manufacture of cheap body linen for the masses of the people. But everything depends upon the immediate growth of the raw material.

If flax can be obtained either home-grown or from India, so as to reduce the price of the manufactured article, I see no reason to doubt a vast extension of the linen trade; but we must have facts for data and not surmises. We must have the

actual supply of raw material; it must not be assumed. At present the imports appear to be gradually decreasing; whilst out of the 32 flax-growing counties of Ireland from whence our largest supply is to be looked for, its acreage has decreased in 21 of them, and has only increased in 10; and what is more important is, that although the acreage under crop has increased in the province of Ulster, it has decreased in Munster, Leinster, and Connaught. It is true that, notwithstanding this, there is a gross increase of the flax crop in Ireland of 1,932 accres; but it is all in one province, namely, Ulster; and it may be well, therefore, if, as Mr. Charley says, "Irish flax is undoubtedly "the best," and if there is any desire for an early extension of the trade, to inquire why there is this serious falling off in acreage in the other three provinces just named? It is as if the words of Arthur Young in 1778 were on the eve of their fulfilment, though not from the same cause.

"The whole province of Ulster is peopled by weavers. It is they who cultivate or beggar the land, and no other part of Ireland can exhibit the soil in such a state of poverty and desolation by reason of the fabric spreading over the country. If I had an estate I would as soon introduce pestilence and famine as the linen manufacture carried on as it is at present in the north of Ireland. The end is, however, not without a remedy, and the landlords might, with no great difficulty, effect the change. Let them steadily refuse to grant an acre of land to any one who has a loom."

The diminution of the quantity of cotton in this country, and its consequent high price, has driven many manufacturers to the use of linen for warps and other kinds of bodies of goods which cotton formerly supplied; and with the present supply and the ordinary demand for it, the price of flax must, I think, rise still higher than it has done, and the demand for its products diminish in proportion. Machinery cannot always be expected to cheapen them at the expense of labour. Already it has done almost all that can be expected of it in this way. What is really wanted to be known is, How much do we grow in the kingdom already? Of that, how much is comparatively put to waste? What are the required appliances to turn it to account? How much more can we grow without prejudice to cereal and other food crops, considering the nature of existing agreements, the distance from consumption, and the cost of manufacture when it arrives at its destination, and what can we procure from our colonies in aid? Till these questions are reduced to figures, as it appears to me, the flax trade must remain one of great uncertainty in its operations and results, and however it may be pushed in parts, or whatever may be hoped for from it, it

will still remain in the same state. One of the greatest disadvantages under which Irish flax labours is the careless and inefficient manner in which it is scutched. The Messrs. Dewar, in their circular of Nov. 1st, 1862, use these words, "Numbers "of growers are at present losing 6*d.* to 12*d.* a stone in con- "sequence of the careless and inefficient mode in which the "flax has been scutched;" and Mr. Sub-inspector Haydon reports to me, on his visits to several of the scutching mills in Ireland, as follows:—

"The scutching mills are very numerous in the neighbourhood of Armagh, Cookstown, and northwards. I have a list of 43 immediately around Cookstown, and that list is by no means complete. These mills, as far as I am able to form an opinion, appear to me in general to be the narrowest, dirtiest, and worst-ventilated buildings for a labour so peculiarly dusty and distressing to the workers. As a rule the Irish scutching mills are ill-built, ill-kept, unhealthy sheds, packed with dangerous machinery, unfenced, revolving rapidly, and liable to entangle and perhaps destroy any person coming within its reach. As one consequence, accidents are frequent, and loss of life or limb invariably takes place whenever an accident occurs. In most of these mills, men and women, boys and girls, work from daylight usually till 9 and 10 and frequently till 12 p.m. The atmosphere in which they work is one thick constant cloud of dust and fine particles of straw and flax. From September to February and March is the period of work, and girls and boys leave other employment for the sake of the overtime and higher wages made in the scutch mills."

I suspect that one of the reasons, if not the principal one, why flax is not more extensively grown in the United Kingdom, is the want of portable scutching mills, and of convenient steeping ponds. It seems that in Ireland also, great loss has from time to time arisen to the farmer by the waste which sometimes takes place at the little water scutching mills, both of the short shove, the short fibre, and the tow, all of which are more or less valuable; and that in the economy of this kind of manufacture there is yet much to be learnt, and a great deal of profit to be obtained which has never yet been realized: and that there is a vast field open to the manufacturers of agricultural machinery for the construction of machines which shall be at once applicable to general farming purposes and to the scutching of flax.

I have spoken of the possibility of a considerable advance being made in the linen trade, provided a larger supply of raw material can be obtained. What has been accomplished of late years in Belfast, and particularly in Londonderry, strengthens very much this opinion; and that the manufacturers will avail themselves of any opportunity for improving

their condition whenever it may present itself. The quantity of linen shirts and chemises made in Belfast and Derry by the use of the stitching machine, at this day, would almost exceed belief. In Londonderry it has become a trade of vast importance. There are now not less than 10 shirt factories there, and one at Strabane, which employ, within the factories and without, about 4,000 hands; of those, however, only two are worked by steam power. In all the others the stitching machines are worked by the workers. The occupations in this business are, for the factory hands, "cutting-"out, stitching, and altering;" for the country hands "making-"up." These latter are paid by the piece, and earn from 4*d.* to 1*s.* a day, with the additional advantage of living and working within their own homes. The factory hands employed in cutting-out are usually paid monthly, and their wages vary from 15*s.* to 45*s.* a month. Stitching is paid by piece-work, and the wages vary from 3*s.* to 10*s.* a week. The "altering "hands" are paid by the month, and make from 17*s.* to 25*s.* Embroidery hands are occasionally required, and these can make 2*s.* to 2*s.* 6*d.* a day. The price of a linen shirt admirably made varies from 4*s.* 6*d.* to 10*s.*

There is only one factory in Derry, *i. e.* a place built as a factory. All the others are merely private buildings converted into factories. It is a curious fact, that the girls employed in these shirt factories, as well as in the stoves of bleach-works, find pleasure, if not use, in the consumption of vast quantities of snuff—a habit which has extended even to the children, in some of the dwellings. Upon inquiring into the fact of this habit, I have various replies. One I have from a gentleman, who tells me "My informant about "snuff was a Derry tobacco manufacturer." I have another from the occupier of one of the Factories, who says "That it "is used largely we know from personal experience of the "work, and from their hands being stained with snuff drops:" and I have others again from medical men, one of whom thus writes: "I have to say, in reply to your inquiries, that "the stove-workers have informed me the kind of snuff "generally in use among them is Cork snuff, which is "very highly toasted. The use of it is habitual, and is "also general among reelers and dry spinners. I do "not think the use of snuff is general among the other "workers." As to the cause of this habit, and its effects upon the health of the workers, I may quote part of an article extracted from the 'Cornhill Magazine,' for November 1862, in its defence, and even as to its merits. "As for the evils of snuff, they have been already described "as purely local, and certainly snuff is not chargeable with "the production of a craving for alcohol; on the contrary,

" it is distinctly a preservative against it. It is a rare case " to find a regular snuff-taker who is addicted to alcoholic " excess, and I am convinced from my own observation that " nothing but snuff saves many of the poorer classes from " flying to drink in mere desperation. It is a stimulant " which serves them well when they are faint and weary, " and which is not followed by any after depression. In fact, " the word stimulant and stimulation, as they are popularly " understood, hardly convey a sufficient idea of the value of " tobacco, in the shape of snuff, to persons whose nervous " systems are harassed by the most fatal of all combinations " of evil influences, the concurrence of great anxiety, exces- " sive labour, and deficient food. To such persons tobacco " may be said to be actual nourishment, for though it un- " doubtedly does not help to build up new tissue, it is most " certainly capable of prolonging life and vigour, when they " would rapidly fail under the stress of fatigue and miseries " disproportionate to the natural powers of resistance." Of my own experience I can say nothing either for or against this testimony, but I can assert that all the causes, which operate to produce great and vital depression are to be found in the close congregation and occasional long hours of shirt makers, and in the long hours and most exhaustive temperatures of the stove departments of bleach-works.

FLAX.—ENGLAND.

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	18	—	—
1850	9	—	—	—	—	—	—	—	—	—	—	—	9	D.	—
1856	8	D.	—	2	—	337	—	—	3	—	—	—	13	—	—
1862	8	—	117,412	1	D.	489	45·1	214	4	33·3	—	—	13	—	44·4
1839	—	—	—	—	—	—	—	—	—	—	—	—	87	—	—
1850	38	—	—	7	—	991	—	—	8	—	7	—	60	D.	—
1856	37	D.	—	11	71·4	1,484	49·7	—	9	—	3	D.	60	—	—
1860	42	13·5	172,272	18	63·3	2,160	45·5	1,528	6	D.	4	33·3	70	—	16·6
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	3	—	—	—	—	30	—	—	2	—	—	—	5	25·0	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	3	—	4,644	—	—	—	—	—	—	—	—	—	3	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1850	7	—	—	—	—	—	—	—	—	—	—	—	7	D.	—
1856	8	14·2	—	—	—	18	—	—	2	—	—	—	10	—	—
1862	8	—	27,442	—	—	9	D.	9	1	D.	—	—	9	—	28·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	1	—	—	—	—	20	—	—	2	—	—	—	3	—	—
1862	—	—	—	1	—	12	D.	12	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—
1850	2	—	—	1	—	—	—	—	—	—	—	—	3	D.	—
1856	—	—	—	2	—	—	—	—	—	—	—	—	2	—	—
1862	—	—	—	2	—	40	—	36	1	—	1	—	3	—	—
1839	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1860	1	—	4,280	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	2	D.	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	1,540	—	—	—	—	—	—	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—
1850	11	—	—	—	—	5	—	—	1	—	—	—	12	D.	—
1856	10	D.	—	2	—	59	—	—	1	—	—	—	13	—	—
1862	8	D.	5,870	4	—	105	77·9	—	1	—	—	—	13	—	8·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	19	—	—
1850	15	—	—	—	—	—	—	—	—	—	2	—	17	D.	—
1856	15	—	—	—	—	—	—	—	—	—	—	—	15	—	—
1862	13	D.	6,946	—	—	10	—	8	1	—	—	—	14	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	376	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1860	1	—	2,230	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	9	—	—	1	—	—	—	2	—	—
1856	—	—	—	—	—	22	144·4	—	2	—	—	—	2	—	—
1862	1	—	1,096	—	—	22	—	—	1	—	—	—	2	—	—

FLAX.—ENGLAND.

Persons employed.											Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.										
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
46	—	32	—	78	1,083	—	1,798	—	2,881	—	—	—	Lancaster -	1,736	60
74	60·8	70	118·7	144	716	D.	2,008	11·9	2,724	D.	D.	—			
80	8·1	75	7·1	155	933	30·3	2,525	25·7	3,458	26·9	—	—			
149	86·2	242	222·6	291	841	D.	2,540	·5	3,381	D.	—	24·1			
664	—	479	—	1,143	3,240	—	6,414	—	9,654	—	—	—	Yorkshire -	5,289	275
461	D.	344	D.	805	3,621	11·7	7,894	23·0	11,515	19·2	19·2	—			
497	7·8	427	24·1	924	3,738	3·2	8,115	2·8	11,853	2·9	—	—			
535	7·6	709	66·0	1,244	3,550	D.	9,012	11·0	12,562	5·9	—	9·0			
13	—	19	—	32	185	—	264	—	449	—	—	—	Westmoreland	70	33
37	184·6	49	157·8	86	200	8·1	406	53·7	606	34·9	34·9	—			
—	—	2	—	2	45	D.	43	D.	88	D.	—	—			
24	—	9	—	33	113	151·1	190	341·1	303	244·3	—	D.			
7	—	9	—	16	57	—	309	—	366	—	—	—	Cumberland -	420	180
64	814·2	9	—	73	325	470·1	536	73·4	861	135·2	135·2	—			
46	D.	39	333·0	85	438	34·7	905	68·8	1,343	55·9	—	—			
69	50·0	44	12·8	113	394	D.	931	2·8	1,325	D.	—	53·8			
—	—	—	—	—	51	—	42	—	210	—	—	—	Northumberland	10	—
—	—	—	—	—	119	133·3	317	654·7	436	107·6	107·6	—			
—	—	—	—	—	126	D.	461	45·4	587	34·6	—	—			
—	—	—	—	—	19	D.	7	D.	26	D.	—	D.			
—	—	—	—	—	100	—	322	—	422	—	—	—	Durham	26	—
—	—	—	—	—	12	D.	32	D.	44	D.	D.	—			
—	—	—	—	—	20	66·6	44	37·5	64	45·4	—	—			
—	—	—	—	—	26	30·0	43	D.	69	1·8	—	56·8			
61	—	40	—	101	369	—	432	—	801	—	—	—	Salop -	300	—
91	—	47	—	138	464	—	384	—	848	—	—	—			
49	—	26	—	75	267	—	363	—	630	—	—	—			
74	—	48	—	122	275	—	381	—	656	—	—	—			
2	—	—	—	2	18	—	121	—	139	—	—	—	Gloucester -	94	—
—	—	—	—	—	56	211·1	128	5·7	184	32·3	32·3	—			
—	—	—	—	—	62	10·7	94	D.	156	D.	—	—			
—	—	—	—	—	44	D.	110	17·0	154	D.	—	D.			
7	—	4	—	11	105	—	615	—	720	—	—	—	Somerset	278	126
—	—	—	—	—	151	43·8	348	D.	499	D.	D.	—			
—	—	—	—	—	158	4·6	375	7·7	533	6·8	—	—			
—	—	—	—	—	246	55·6	462	23·2	708	32·8	—	41·8			
5	—	16	—	21	113	—	543	—	656	—	—	—	Dorset -	208	176
—	—	—	—	—	153	35·3	393	D.	546	D.	D.	—			
1	—	—	—	1	161	5·2	401	2·0	562	2·9	—	—			
19	—	9	—	28	212	31·6	422	5·2	634	12·8	—	16·1			
—	—	—	—	—	10	—	91	—	101	—	—	—	Devon -	—	40
—	—	—	—	—	1	—	27	D.	28	D.	D.	—			
—	—	—	—	—	1	—	25	D.	26	D.	—	—			
—	—	—	—	—	36	—	36	44·0	72	176·9	—	157·1			
8	—	7	—	15	23	—	73	—	96	—	—	—	Derby -	—	30
12	—	6	—	18	28	—	82	—	110	—	—	—			
10	—	15	—	25	26	—	74	—	100	—	—	—			
7	—	13	—	20	17	—	76	—	93	—	—	—			
—	—	—	—	—	3	—	83	—	86	—	—	—	Hants -	—	36
—	—	—	—	—	14	366·6	83	—	97	12·7	12·7	—			
—	—	—	—	—	41	192·8	85	2·3	126	29·8	—	—			
—	—	10	—	10	52	25·3	81	D.	133	5·5	—	37·1			

FLAX.—ENGLAND—*continued.*

Years.	Factories.												Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	2	—	—	1	—	—	—	—	—	—	2	—	5	66·6	—
1856	3	D.	—	—	—	30	—	—	—	—	3	—	6	—	—
1862	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	3	—	—	1	—	10	—	—	—	—	1	—	4	—	—
1856	4	33·3	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1850	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
1856	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
1862	1	—	200	1	—	70	—	60	—	—	—	—	2	—	—

FLAX.—SCOTLAND.

1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	4	100·0	—
1856	4	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	1	D.	20,152	—	—	—	—	—	—	—	—	—	1	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	2	—	—	—	—	98	—	—	1	—	1	—	4	33·3	—
1856	1	D.	—	—	—	138	40·8	—	1	—	—	—	2	—	—
1862	2	100·0	6,968	—	—	—	—	—	—	—	—	—	2	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	3	—	5,852	—	—	—	—	—	—	—	—	—	3	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1850	3	—	—	—	—	54	—	—	1	—	—	—	4	D.	—
1856	3	—	—	2	—	72	33·3	—	—	—	—	—	5	—	—
1862	2	D.	2,184	3	—	105	45·8	97	—	—	—	—	5	—	25·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	13	—	—
1850	14	—	—	3	—	298	—	—	2	—	—	—	19	46·1	—
1856	11	D.	—	4	33·3	412	38·2	—	1	—	—	—	16	—	—
1862	9	D.	10,652	3	D.	502	21·8	368	1	—	2	—	15	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	98	—	—
1850	85	—	—	11	—	1,587	—	—	5	—	—	—	101	5·2	—
1856	65	D.	—	15	36·3	3,220	102·8	—	14	180·0	6	—	100	—	—
1862	36	D.	160,090	21	40·0	5,108	58·6	3,006	19	35·7	9	—	85	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
1850	7	—	—	—	—	—	—	—	—	—	—	—	7	D.	—
1856	5	D.	—	—	—	—	—	—	—	—	—	—	5	—	—
1862	5	—	2,290	—	—	—	—	—	—	—	—	—	5	—	D.

FLAX.—ENGLAND—*continued.*

Persons employed.											Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.										
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
—	—	—	—	—	37	—	38	—	75	—	—	—	Kent	—	—
—	—	—	—	—	58	—	48	—	106	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	19	—	43	—	62	—	—	—	Lincoln	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	12	—	17	—	29	—	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	10	—	53	—	63	—	—	—	Middlesex	26	—
—	—	—	—	—	130	1200·0	69	30·1	199	215·8	215·8	—			
—	—	—	—	—	107	D.	42	D.	149	D.	—	—			
—	—	—	—	—	49	D.	10	D.	59	D.	—	D.			
2	—	—	—	2	4	—	37	—	41	—	—	—	Surrey	—	—
—	—	—	—	—	58	1350·0	34	D.	92	124·3	124·3	—			
—	—	—	—	—	36	D.	45	32·3	71	D.	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	2	—	23	—	25	—	—	—	Wilts	—	—
—	—	—	—	—	1	D.	15	—	16	D.	—	—			
—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	27	—	54	—	81	—	—	—	Suffolk	—	—
—	—	—	—	—	4	—	2	—	6	—	—	—	Worcester	—	—
—	—	—	—	—	46	—	84	—	130	—	—	—	Norfolk	48	20

FLAX.—SCOTLAND.

—	—	—	—	—	73	—	181	—	254	—	—	—	Lanark	520	—
—	—	—	—	—	321	339·7	808	346·4	1,129	344·4	344·4	—			
—	—	—	—	—	198	D.	700	D.	898	D.	—	—			
1	—	22	—	23	152	D.	699	D.	851	D.	—	D.			
—	—	—	—	—	52	—	554	—	606	—	—	—	Renfrew	320	40
5	—	2	—	7	249	378·8	818	47·6	1,067	76·0	76·0	—			
12	140·0	39	—	51	280	12·4	816	D.	1,096	2·7	—	—			
28	133·3	13	D.	41	220	D.	372	D.	592	D.	—	D.			
8	—	10	—	18	100	—	172	—	272	—	—	—	Ayr	295	—
—	—	—	—	—	226	126·0	369	114·5	595	118·7	118·7	—			
—	—	1	—	1	215	D.	452	22·4	667	12·1	—	—			
—	—	2	—	2	265	24·1	532	17·6	797	19·4	—	33·9			
9	—	4	—	13	13	—	29	—	42	—	—	—	Linlithgow	—	—
9	—	14	—	23	123	—	488	—	611	—	—	—	Edinburgh	180	30
13	44·4	22	—	35	142	15·4	394	D.	536	D.	D.	—			
—	—	—	—	—	167	17·6	471	19·5	638	19·0	—	—			
—	—	—	—	—	98	D.	403	D.	501	D.	—	D.			
8	—	4	—	12	154	—	447	—	601	—	—	—	Perth	77	268
—	—	—	—	—	373	142·2	1,030	130·4	1,403	133·6	133·6	—			
4	—	3	—	7	304	D.	1,025	D.	1,329	D.	—	—			
20	400·0	41	—	61	360	18·4	1,117	8·9	1,477	11·1	—	5·2			
22	—	39	—	61	2,643	—	6,735	—	9,378	—	—	—	Forfar	5,736	152
43	95·4	166	325·6	209	4,522	71·9	11,742	74·3	16,264	70·2	70·2	—			
98	127·8	210	26·5	308	5,724	26·5	14,995	27·7	20,724	27·3	—	—			
199	103·0	400	90·4	599	5,840	20·2	15,334	2·2	21,174	2·1	—	30·2			
2	—	—	—	2	30	—	116	—	146	—	—	—	Kincardine	20	52
—	—	—	—	—	31	3·3	108	D.	139	D.	D.	—			
—	—	—	—	—	13	D.	56	D.	69	D.	—	—			
—	—	—	—	—	15	15·3	79	41·0	94	36·2	—	D.			

FLAX.—SCOTLAND—*continued.*

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	3	—	—	—	—	—	—	—	1	—	—	—	4	—	—
1856	—	—	—	—	—	305	—	—	1	—	—	—	1	—	—
1862	—	—	16,814	—	—	428	40·3	428	1	—	—	—	1	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	46	—	—
1850	40	—	—	3	—	194	—	—	—	—	—	—	43	D.	—
1856	27	D.	—	4	33·3	864	345·3	—	—	—	1	—	32	—	—
1862	26	D.	54,383	14	250·0	1,823	111·1	1,288	3	—	3	200	46	—	6·9

FLAX.—IRELAND.

1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	2	100·0	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	2	—	8,888	1	—	54	—	47	—	—	—	—	3	—	200·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	2	100·0	—
1856	2	—	—	1	—	150	—	—	—	—	—	—	3	—	—
1862	2	—	25,420	1	—	150	—	61	—	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	23	—	—
1850	36	—	—	1	—	58	—	—	1	—	—	—	38	65·2	—
1856	43	19·4	—	6	—	994	—	—	5	—	1	—	55	—	—
1862	28	D.	360,592	6	—	2,854	191·1	1,950	12	120·0	1	—	47	—	23·[illegible]
1839	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1856	7	75·0	—	5	—	343	—	—	2	—	—	—	14	—	—
1862	5	D.	29,318	6	—	1,023	198·2	817	2	—	2	—	15	—	275·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	11	—	—	—	—	—	—	—	—	—	—	—	11	266·6	—
1856	12	9·0	60	—	—	—	—	—	1	—	2	—	15	—	—
1862	11	D.	—	—	—	—	—	—	2	—	2	—	15	—	36·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	3	50·0	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	1	D.	3,420	—	—	—	—	—	—	—	—	—	1	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	3,000	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	4	100·0	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	2	D.	2,946	—	—	—	—	—	1	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1856	3	50·0	—	—	—	—	—	—	—	—	—	—	3	—	—
1862	2	D.	19,744	—	—	204	—	167	1	—	—	—	3	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	5	—	—	—	—	—	—	—	—	—	—	—	5	400·0	—
1856	7	40·0	—	1	—	16	—	—	—	—	—	—	8	—	—
1862	5	D.	24,171	1	—	103	543·7	82	—	—	1	—	7	—	40·0
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	7,352	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	—	—	128	—	—	1	—	—	—	1	—	—
1862	—	—	4,500	—	—	150	17·1	75	1	—	—	—	1	—	—

FLAX.—SCOTLAND—*continued.*

Persons employed.										Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.									
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
41	—	66	—	107	668	—	2,270	—	2,938	—	—	—	Aberdeen	785	—
—	—	—	—	—	827	23·6	2,072	D.	2,899	D.	D.	—			
—	—	—	—	—	519	D.	1,322	D.	1,841	D.	—	—			
—	—	—	—	—	476	D.	1,699	28·5	2,175	18·0	—	D.			
2	—	9	—	11	868	—	2,171	—	3,039	—	—	—	Fife	1,579	458
—	—	28	211·1	28	1,092	24·6	3,108	43·1	4,200	38·2	38·2	—			
4	—	55	96·4	59	911	D.	3,554	14·3	4,465	6·3	—	—			
54	—	97	76·3	151	1,317	44·5	4,231	19·0	5,548	24·2	—	32·0			

FLAX.—IRELAND.

—	—	—	—	—	79	—	218	—	297	—	—	—	Dublin	220	210
—	—	—	—	—	153	93·6	269	23·3	422	42·0	42·0	—			
11	—	12	—	23	466	204·5	489	81·7	955	126·3	—	—			
29	163·6	37	208·3	66	270	D.	540	10·4	810	D.	—	91·9			
—	—	—	—	—	81	—	124	—	205	—	—	—	Kildare	55	95
1	—	5	—	6	173	113·5	307	147·5	480	134·1	134·1	—			
—	—	—	—	—	224	29·4	434	41·3	648	35·0	—	—			
18	—	21	—	39	242	8·5	461	6·2	704	8·6	—	46·6			
17	—	65	—	82	1,909	—	4,067	—	5,976	—	—	—	Antrim	6,808	668
—	—	16	D.	16	3,767	97·3	7,890	94·0	11,657	95·0	95·0	—			
41	—	24	50·0	65	4,875	29·4	11,743	48·8	16,618	42·5	—	—			
103	151·2	196	716·6	299	5,459	11·9	13,567	15·5	19,026	14·4	—	63·2			
—	—	—	—	—	171	—	347	—	518	—	—	—	Armagh	913	281
—	—	—	—	—	300	75·4	764	120·1	1,064	105·4	105·4	—			
—	—	—	—	—	833	177·6	1,470	92·4	2,303	116·5	—	—			
16	—	97	—	113	1,271	52·5	2,311	57·2	3,582	55·5	—	236·6			
1	—	21	—	22	241	—	511	—	752	—	—	—	Down	1,730	545
6	—	10	D.	16	1,719	613·2	2,617	412·1	4,336	476·5	476·5	—			
—	—	25	150·0	25	1,671	D.	3,044	16·3	4,716	8·7	—	—			
43	—	61	144·0	104	1,528	D.	3,634	19·3	5,162	9·4	—	19·0			
—	—	—	—	—	63	—	151	—	214	—	—	—	Londonderry	50	20
—	—	—	—	—	56	D.	195	29·1	251	17·2	17·2	—			
—	—	—	—	—	46	D.	91	D.	137	D.	—	—			
4	—	8	—	12	47	2·1	111	21·9	158	15·8	—	D.			
—	—	—	—	—	29	—	139	—	168	—	—	—	Neath	20	40
—	—	—	—	—	28	—	139	—	167	—	—	—			
—	—	—	—	—	27	—	156	—	183	—	—	—			
—	—	—	—	—	34	—	143	—	177	—	—	—			
—	—	—	—	—	11	—	128	—	129	—	—	—	Monaghan	10	72
—	—	—	—	—	115	945·4	234	82·8	349	170·5	170·5	—			
—	—	—	—	—	73	D.	208	D.	281	D.	—	—			
—	—	—	—	—	57	D.	201	D.	258	D.	—	D.			
—	—	—	—	—	141	—	448	—	589	—	—	—	Louth	545	—
—	—	—	—	—	250	77·3	619	38·1	869	47·5	47·5	—			
—	—	—	—	—	343	37·2	684	10·5	1,027	18·1	—	—			
—	—	—	—	—	432	25·9	916	33·9	1,348	31·2	—	55·1			
—	—	—	—	—	56	—	103	—	159	—	—	—	Tyrone	154	333
—	—	—	—	—	280	400·0	1,061	930·0	1,341	743·3	743·3	—			
—	—	—	—	—	248	D.	907	D.	1,155	D.	—	—			
13	—	22	—	35	394	58·8	1,093	20·5	1,487	28·7	—	10·8			
—	—	—	—	—	58	—	127	—	185	—	—	—	Donegal	130	120
—	—	—	—	—	51	D.	101	D.	152	D.	—	—			
—	—	—	—	—	106	107·8	210	107·9	316	—	—	107·8			
—	—	—	—	—	92	—	477	—	569	—	—	—	Clare	75	—
—	—	—	—	—	112	21·8	385	D.	497	D.	—	—			

The Silk Trade.

The silk trade is found in 23 counties in England, and it is of importance in them in the following order, down to wherever 100 persons are engaged in it:—

Counties.	Mills in 1862.	Persons employed.		Persons to a Factory.
		1839.	1862.	
Chester - - -	175	4,870	13,604	77
Lancaster - - -	48	5,591	8,931	186
Derby - - -	42	3,216	4,732	112
Warwick - - -	331	535	3,721	11
Essex - - -	9	1,441	2,865	318
York - - -	27	1,084	2,644	97
Stafford - - -	17	1,444	2,227	131
Norfolk - - -	5	2,274	2,029	405
Somerset - - -	13	2,065	1,433	110
Gloucester - -	12	123	1,241	103
Leicester - - -	14	0	1,229	87
Herts - - -	5	784	1,132	226
Nottingham - -	17	449	1,116	65
Wilts - - -	4	350	738	184
Suffolk - - -	4	465	721	180
Dorset - - -	4	333	707	176
Devon - - -	4	405	485	121
Bucks - - -	3	118	373	124
Middlesex - -	13	154	341	26
Surrey - - -	1	65	138	138

The number of mills has increased in 14 counties, decreased in five, remained stationary in three, ceased in three. The trade is new in one.

In those counties where the mills have decreased, the total decrease is equal to 59 per cent.; and in those where they have increased, the total increase is equal to 213 per cent. Deducting Warwick as exceptional, in consequence of the fresh entry of many previously unnoticed mills, there is a nett increase in the number of mills since 1839 of 56 per cent.

In Scotland the silk trade is only found in two counties, viz., Lanark and Renfrew, the former having 833 persons in it, and the latter 221. It has ceased in Edinburgh since 1839.

In Ireland it is found in Wicklow, where 111 persons are employed in it, and in Antrim, both mills being new in the Returns of 1862.

The General Summary of the Silk Trade of the United Kingdom is as follows :—

Years.	Factories.													Increase per Cent.		Persons employed.									Increase per Cent.		Indicated Horse Power employed.	
	Spinning Mills.	Increase per Cent.	Number of Spindles.	Weaving Mills.	Increase per Cent.	Number of Power Looms.	Power-loom Weavers.	Spindles and Weaving Mills.	Increase per Cent.	Dressing Mills.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.	Children between 8 and 11 years of Age.			Children between 11 and 13 years.			Adolescents and Adults.			1839 to 1850.	1851 to 1862.	Steam.	Water.
																Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				
1839	—	—	—	—	—	—	—	—	—	—	—	—	285	—	—	1,811	2,613	4,424	1,536	2,453	3,98	10,650	22,865	33,515	—	—	—	—
1850	197	—	1,225,560	40	—	6,092	—	30	—	—	10	—	277	D.	—	648	850	1,498	1,737	3,916	5,653	12,667	29,877	42,544	26·9	—	—	—
1856	255	29·4	1,093,799	129	222·5	9,260	—	36	20·0	—	40	300·0	460	—	—	719	967	1,686	1,953	4,448	6,401	16,899	39,238	56,137	—	—	—	—
1862	249	D.	1,388,544	423	227·8	10,709	7,279	51	41·6	3	45	12·5	771	—	178·3	702	1,130	1,832	1,442	3,740	5,182	15,530	36,899	52,429	—	23·2	6,186	864

1856.—Spindles decreased - - - 12·0 per cent.
Power Loom increased - - 52·0 per cent.
Persons increased - - - 31·9 per cent.
1862.—Spindles increased - - - 26·9 per cent.
Looms increased - - - 15·6 per cent.
Persons decreased - - - 7·0 per cent.
Employment of children attending school increased, 1856–1862 - - 8·7 per cent.
Employment of children not attending school decreased - - - 23·5 per cent.

in which it will be seen, that between 1850 and 1856 the spindles decreased 12 per cent., whilst the power looms increased 52 per cent., and the persons employed 31·9 per cent.; and again, that between 1856 and 1862 the spindles increased 26·9 per cent., the looms 15·6 per cent., whilst the persons employed decreased 7·0 per cent.

The exhibited increase of silk mills as shown by this table requires to be qualified by the exceptional case of Warwick. The generally increased number of mills, however, since 1850 shows considerable progress in this branch of manufacture. It may be incidentally noticed, that since 1856 there are more children employed that attend school, and fewer that do not, than formerly. In silk, as in other branches of textile manufacture, it will be seen that production has increased at the expense of labour.

With respect to the consumption of silk by the swifts or spindles, there is much greater difficulty in arriving at even a guess at it, than in any other of the textile fabrics.

In the Parliamentary Returns, the numbers of swifts and spindles are added together,—the one winds, the other spins. And even had they been kept separate, the difficulty would have remained: for the quality of the silk is not uniform, and one person may wind about 4½ lbs. in 60 hours, whilst another may wind 40 and even 50 lbs. In like manner, owing to the nature of the twist, one person may spin with three turns to the inch, and another with 50 turns. It is impossible, therefore almost to do more than give the import of silk less the export for the periods of comparison which have been selected, by which something may, however, be learnt of the progress which the trade has made during the last 20 years.

	Raw Silk in lbs. and Waste.	Knubs and Husks in lbs.	Foreign thrown in lbs.
In 1839 we imported	9,788,738	—	225,268
„ exported	103,304	—	12,660
Had remaining	9,085,434	—	212,608
In 1850 we imported	4,942,407	1,747,242	469,527
„ exported	557,310	13,019	75,190
Had remaining	4,385,117	1,734,223	394,337
In 1856 we imported	7,382,672	2,015,216	853,015
„ exported	1,438,598	662,944	841,553
Had remaining	5,944,074	1,952,272	11,462
In 1861 we imported	8,710,681	3,318,224	124,574
„ exported	4,096,784	93,520	82,780
Had remaining	4,613,897	3,224,704	41,794

Thus we see that the imports of raw and waste silk in 1862, do not vary very much from those of 1839, but have decreased rather than increased, whilst the import of knubs and husks have doubled, and of foreign thrown has diminished nearly one half; and the conclusion seems evident, that whilst we have lost none of our manufactures of the best quality, we have cheapened the wear of silk goods by the use of a kind of silk, which is comparatively valueless elsewhere. In other words, that we have relied upon our own skill and ability more and more every year, and have brought our dressing machinery to greater perfection.

SILK FACTORIES.—ENGLAND.

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	32	—	—
1850	13	D.	—	7	—	1,977	—	—	7	—	—	2	—	29	D.	—
1856	11	D.	—	24	242·8	3,770	90·6	—	9	28·6	—	—	—	44	—	—
1862	12	9·0	128,109	27	12·5	4,201	11·4	2,481	5	D.	—	4	—	48	—	65·5
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	104	—	—
1850	79	—	—	11	—	955	—	—	6	—	—	1	—	97	D.	—
1856	111	40·5	—	11	—	1,125	17·8	—	5	D.	—	11	—	138	—	—
1862	109	D.	409,470	37	236·3	1,509	34·1	851	24	380·0	—	5	D.	175	—	80·4
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—
1850	10	—	—	—	—	—	—	—	—	—	—	—	—	10	D.	—
1856	11	10·0	—	1	—	207	—	—	6	—	—	—	—	18	—	—
1862	11	—	54,928	—	—	210	1·4	167	6	—	—	—	—	17	—	70·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—
1850	12	—	—	1	—	38	—	—	—	—	—	—	—	13	30·0	—
1856	12	—	—	—	—	—	—	—	—	—	—	—	—	12	—	—
1862	10	D.	19,133	1	—	11	—	16	—	—	—	—	—	11	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—
1850	2	—	—	19	—	753	—	—	2	—	—	—	—	23	109·0	—
1856	4	100·0	—	88	363·1	1,741	131·2	—	—	—	—	—	—	92	—	—
1862	4	—	6,732	326	272·7	2,065	18·6	1,528	—	—	—	—	—	331	—	1339·1
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	6	—	—	—	—	55	—	—	1	—	—	—	—	7	250·0	—
1856	11	83·3	—	—	—	—	—	—	—	—	—	—	—	11	—	—
1860	12	9·0	31,320	—	—	—	—	—	—	—	—	—	—	12	—	71·4
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	3	D.	—
1856	3	—	—	1	—	50	—	—	1	—	—	—	—	5	—	—
1861	3	—	24,193	—	—	56	12·0	56	1	—	—	—	—	4	—	33·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	25	—	—
1850	10	—	—	1	—	288	—	—	2	—	—	2	—	15	D.	—
1856	8	D.	—	1	—	216	D.	—	2	—	—	—	—	11	—	—
1862	7	D.	44,956	1	—	270	25·0	242	4	—	—	1	—	13	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1850	5	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1856	5	—	—	—	—	—	—	—	—	—	—	1	—	6	—	—
1862	4	D.	2,824	—	—	—	—	—	—	—	—	—	—	4	—	D.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	1	—	—	—	—	98	—	—	1	—	—	—	—	2	D.	—
1856	2	100·0	—	—	—	80	D.	—	1	—	—	—	—	3	—	—
1862	3	50·0	12,496	—	—	99	23·7	99	1	—	—	—	—	4	—	100·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	2	100·0	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	3	50·0	4,314	—	—	—	—	—	—	—	—	—	—	3	—	200·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	22	—	—
1850	16	—	—	—	—	407	—	—	8	D.	—	—	—	24	9·0	—
1856	23	43·7	—	—	—	390	D.	—	6	—	—	2	—	31	—	—
1862	24	4·3	98,210	9	—	449	15·1	146	2	D.	—	7	250·0	42	—	75·0

SILK FACTORIES.—ENGLAND.

Persons employed.																Increase per Cent.		County.	Indicated Horse Power employed 1862.	
Children.									Adolescents and Adults.											
Males under 11 Years.	Increase per Cent.	Females under 11 Years.	Increase per Cent.	Total.	Males between 13 & 11.	Increase per Cent.	Females between 13 & 11.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
205	—	—	—	528	244	—	493	—	737	1,689	—	3,902	—	6,591	—	—	—			
60	D.	45	—	105	216	D.	655	32·8	871	2,338	38·4	5,870	50·4	8,208	24·3	24·3	—	Lancaster -	1,153	20
64	6·6	70	55·5	134	189	D.	614	D.	803	3,204	37·0	7,354	25·2	10,558	28·6	—	—			
82	28·1	73	4·2	155	72	D.	473	D.	545	2,496	D.	6,435	D.	8,931	D.	—	8·8			
727	—	1,017	—	1,744	631	—	686	—	1,317	4,870	—	6,962	—	11,832	—	—	—			
340	D.	426	D.	766	764	21·0	1,060	54·5	1,824	4,890	0·4	7,507	7·8	12,397	4·7	4·7	—	Chester	1,234	198
364	7·0	470	10·3	834	752	D.	1,081	1·9	1,833	5,322	8·8	9,244	23·1	14,566	17·4	—	—			
230	D.	279	D.	509	526	D.	761	D.	1,287	5,087	D.	8,517	D.	13,604	D.	—	9·7			
105	—	154	—	289	53	—	114	—	167	508	—	986	—	1,494	—	—	—			
30	D	41	D.	71	71	33·9	246	115·7	317	494	D.	999	1·3	1,493	D.	D.	—	Stafford	204	—
—	—	—	—	—	129	81·6	245	D.	374	948	91·9	1,455	45·6	2,403	60·9	—	—			
12	D.	28	D.	40	122	D.	321	31·0	443	805	D.	1,422	D.	2,227	D.	—	49·1			
42	—	53	—	95	12	—	36	—	48	68	—	266	—	334	—	—	—			
46	9·5	79	49·0	125	30	150·0	88	144·4	118	113	66·1	555	108·6	668	100·0	100·0	—	Worcester -	6	62
72	56·5	92	16·4	167	54	80·0	119	36·3	173	170	50·4	652	17·4	822	23·0	—	—			
51	D.	79	D.	130	16	D.	78	D.	94	100	D.	557	D.	657	D.	—	D.			
24	—	19	—	43	22	—	34	—	56	218	—	317	—	535	—	—	—			
—	—	—	D.	—	1	D.	4	D.	5	704	222·9	1,285	305·3	1,989	271·7	271·7	—	Warwick	381	21
12	—	9	—	21	43	—	67	1575·0	110	1,882	167·3	2,544	97·9	4,426	122·5	—	—			
13	8·3	19	111·1	32	46	6·9	64	D.	110	1,549	D.	2,172	D.	3,721	D.	—	87·0			
14	—	28	—	42	5	—	26	—	31	22	—	101	—	123	—	—	—			
—	—	29	3·5	29	37	640·0	193	642·3	230	116	427·2	736	623·7	852	592·6	592·6	—	Gloucester	52	58
24	—	66	27·5	90	119	221·6	258	33·6	377	235	128·4	1,108	50·5	1,373	61·1	—	—			
22	D.	93	40·9	115	74	D.	242	D.	316	204	D.	1,037	D.	1,241	D.	—	45·6			
9	—	39	—	48	4	—	28	—	32	26	—	324	—	350	—	—	—			
10	11·1	12	D.	22	7	75·	15	D.	22	37	42·3	263	D.	300	D.	D.	—	Wilts -	22	59
1	D.	2	D.	3	12	71·4	136	806·6	148	48	29·7	569	116·3	617	105·6	—	—			
17	—	46	—	63	30	150·0	126	D.	156	118	145·8	620	8·9	738	19·6	—	146·0			
167	—	249	—	416	75	—	233	—	308	406	—	1,659	—	2,065	—	—	—			
17	D.	26	D.	43	87	16·0	256	9·8	343	267	D.	1,478	D.	1,745	D.	D	—	Somerset -	140	56
35	105·8	55	111·5	90	102	17·2	236	D.	338	281	5·2	1,243	D.	1,524	D.	—	—			
23	D.	82	48·8	105	80	D.	140	D.	220	260	D.	1,173	D.	1,433	D.	—	D.			
10	—	66	—	76	5	—	35	—	48	37	—	296	—	333	—	—	—			
20	100·0	26	D.	46	29	480·0	87	148·5	116	136	267·5	498	68·2	634	90·3	90·3	—	Dorset-	36	29
11	D.	44	69·2	55	74	155·1	106	21·8	180	193	41·9	588	18·0	781	23·1	—	—			
34	209·0	68	54·5	102	54	D.	112	5·6	166	176	D.	531	D.	707	D.	—	11·5			
8	—	22	—	30	16	—	34	—	50	62	—	303	—	365	—	—	—			
1	—	—	—	1	20	100·0	40	17·6	60	75	20·9	317	4·6	392	7·4	7·4	—	Devon -	—	48
—	—	—	—	—	30	50·0	92	130·0	72	91	21·3	301	D.	392	—	—	—			
14	—	19	—	33	30	—	84	D.	114	95	4·3	390	29·5	485	23·7	—	23·7			
7	—	18	—	25	8	—	16	—	24	28	—	153	—	181	—	—	—	Berks -	—	—
25	—	15	—	40	18	—	15	—	33	65	—	53	—	118	—	—	—			
—	—	—	—	—	42	133·3	53	253·3	95	65	—	160	201·8	225	90·6	90·6	—	Bucks	12	—
7	—	4	—	11	55	30·9	85	60·3	140	113	73·8	273	70·6	386	71·5	—	—			
35	400·0	35	775·0	70	28	D.	63	D.	91	104	D.	269	D.	373	D.	—	65·7			
156	—	169	—	325	167	—	195	—	362	1,013	—	2,203	—	3,216	—	—	—			
8	D.	4	D.	12	192	14·9	487	149·7	679	1,307	29·0	3,573	62·1	4,880	51·7	51·7	—	Derby -	549	—
41	412·5	52	1200·0	93	87	D.	416	D.	503	1,514	15·8	4,592	28·5	6,106	25·1	—	—			
9	D.	28	D.	37	60	D.	278	D.	338	1,046	D.	3,686	D.	4,732	D.	—	D.			

SILK FACTORIES.—ENGLAND—*continued.*

Years.	Factories.													Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—
1850	5	—	—	—	—	570	—	—	1	—	—	—	—	6	D.	—
1856	7	40·0	—	—	—	569	D.	—	1	—	—	—	—	8	—	—
1862	5	D.	155,681	—	—	591	3·8	645	1	—	—	1	—	9	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	D.	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	3,300	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	—	4	D.	—
1856	5	25·0	—	—	—	—	—	—	—	—	—	—	—	5	—	—
1862	5	—	47,024	—	—	—	—	—	—	—	—	—	—	5	—	25·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	1,000	—	—	—	—	—	—	—	—	—	—	1	—	—
1839	1	—	—	—	—	—	—	—	—	—	—	4	—	4	300·0	—
1850	—	—	—	—	—	—	—	—	—	—	—	11	175·0	11	—	—
1856	—	—	—	—	—	5	—	—	—	—	—	13	18·1	13	—	225·0
1860	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	1	—	—	1	—	—	—	—	2	—	—	—	—	4	—	—
1856	—	—	—	2	—	—	—	—	4	—	—	1	—	7	—	—
1862	—	—	75,356	1	—	632	—	543	3	—	—	1	—	5	—	25·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1856	9	125·0	—	—	—	—	—	—	1	—	—	4	—	14	—	—
1862	8	D.	32,752	5	—	39	—	7	—	—	1	3	—	17	—	325·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1856	4	33·3	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	1	—	5,100	—	—	16	—	12	1	—	—	2	—	4	—	33·3
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	—	—	—	1	—	69	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	16	—	—
1850	15	—	—	—	—	—	—	—	—	—	—	1	—	16	—	—
1856	17	13·3	—	—	—	—	—	—	—	—	—	10	—	27	—	—
1862	21	23·5	122,952	1	—	8	—	5	1	—	2	2	—	27	—	68·7
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	14	—	479	—	408	—	—	—	—	—	14	—	—
1856	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—

SILK FACTORIES.—ENGLAND—*continued.*

Persons employed.																Increase per Cent.		County.	Indicated Horse Power employed 1862.	
Children.										Adolescents and Adults.										
Males under 11 Years.	Increase per Cent.	Females under 11 Years.	Increase per Cent.	Total.	Males between 13 & 11.	Increase per Cent.	Females between 13 & 11.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
22	—	64	—	86	45	—	108	—	153	204	—	1,237	—	1,441	—	—	—			
4	D.	14	D.	18	20	D.	155	43·5	175	315	54·4	1,998	61·5	2,313	60·5	60·5	—			
2	D.	4	D.	6	40	100·	187	20·6	227	278	D.	2,322	16·2	2,600	12·4	—	—	Essex -	189	31
1	D.	21	425·0	22	79	97·5	289	54·5	368	319	14·7	2,546	9·6	2,865	10·1	—	23·8			
7	—	32	—	39	1	—	29	—	30	21	—	201	—	222	—	—	—			
—	—	—	—	—	1	—	13	D.	14	10	D.	101	D.	111	D.	D.	—			
—	—	—	—	—	7	—	27	107·6	34	17	70·0	96	D.	113	1·8	—	—	Hants	—	8
—	—	—	—	—	—	—	38	40·7	38	5	D.	88	D.	93	D.	—	D.			
106	—	75	—	181	79	—	68	—	147	367	—	417	—	784	—	—	—			
71	D.	59	D.	130	116	46·8	112	64·7	228	450	22·6	526	26·1	976	24·4	24·4	—			
63	D.	64	8·4	127	112	D.	168	50·0	280	426	D.	680	29·2	1,106	13·3	—	—	Herts -	85	56
42	D.	56	D.	98	128	14·2	168	—	296	405	D.	727	6·9	1,132	2·3	—	15·9			
—	—	—	—	—	—	—	1	—	1	2	—	38	—	40	—	—	—			
—	—	—	—	—	—	—	—	—	—	6	400·0	80	110·5	86	115·0	115·0	—			
—	—	—	—	—	—	—	—	—	18	3	D.	105	31·2	108	25·5	—	—	Kent -	8	12
—	—	—	—	—	—	—	4	—	4	4	33·3	32	D.	34	D.	—	D.			
7	—	15	—	22	7	—	17	—	24	33	—	121	—	154	—	—	—			
—	—	—	—	—	—	—	—	—	—	124	275·7	285	135·5	409	165·5	165·5	—			
—	—	—	—	—	—	—	—	—	—	177	42·7	242	D.	419	2·4	—	—	Middlesex -	55	-
—	—	3	—	3	21	—	89	—	110	34	D.	307	26·8	341	D.	—	D.			
62	—	71	—	133	61	—	151	—	212	162	—	2,112	—	2,274	—	—	—			
—	—	—	—	—	1	D.	27	D.	28	160	D.	1,180	D.	1,340	D.	D.	—			
—	—	—	—	—	3	—	149	451·8	152	297	85·6	2,490	111·0	2,787	107·9	—	—	Norfolk	209	-
—	—	—	—	—	—	—	14	D.	14	215	D.	1,814	D.	2,029	D.	—	51·4			
50	—	19	—	69	36	—	23	—	59	177	—	272	—	449	—	—	—			
—	—	—	—	—	36	—	89	286·9	25	101	D.	308	13·2	409	D.	D.	—			
7	—	2	—	9	61	69·4	140	57·3	201	402	298·0	1,020	231·1	1,422	247·6	—	—	Nottingham	244	12
1	D.	4	—	5	19	D.	52	D.	71	338	D.	778	D.	1,116	D.	—	172·8			
28	—	103	—	131	13	—	73	—	86	47	—	418	—	465	—	—	—			
2	D.	6	D.	4	32	146·1	98	34·2	130	72	53·1	506	21·0	578	24·3	24·3	—			
13	550·0	32	433·3	45	22	D.	150	43·8	172	71	D.	777	53·5	848	46·7	—	—	Suffolk	31	8
11	D.	78	143·7	89	25	13·6	138	D.	163	72	1·4	679	D.	721	D.	—	24·7			
7	—	11	—	18	5	—	7	—	12	21	—	44	—	65	—	—	—			
—	—	—	—	—	2	D.	3	D.	D.	73	247·6	108	145·4	181	178·4	—	—	Surrey	13	-
—	—	—	—	—	—	—	—	—	—	32	D.	106	D.	138	D.	—	—			
23	—	21	—	44	29	—	31	—	60	604	—	480	—	1,084	—	—	—			
39	69·5	53	—	92	6	D.	60	93·5	66	723	19·7	965	101·0	1,688	55·7	55·7	—			
—	—	—	—	—	54	800·0	37	D.	91	950	31·3	742	D.	1,692	0·2	—	—	York	1,123	156
103	—	95	—	198	8	D.	23	D.	31	1,209	27·0	1,435	93·3	2,644	56·2	—	56·6			
—	—	—	—	—	8	—	8	—	16	10	—	25	—	35	—	—	—	Hereford	—	-
2	0	1	—	3	630	—	5	—	—	630	—	599	—	1,229	—	—	—	Leicester	169	-
—	—	—	—	—	—	—	3	—	3	4	—	31	—	35	—	—	—	Oxford -	—	-

SILK.—SCOTLAND.

Years.	Factories.														Increase per Cent.	
	Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Dressing.	Miscellaneous Mills.	Increase per Cent.	Total.	1839 to 1850.	1851 to 1862.
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
1850	4	—	—	—	—	—	—	—	—	—	—	—	—	4	33·3	—
1856	4	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
1862	3	D.	23,072	2	—	60	—	60	—	—	—	1	—	6	—	50·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1850	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
1856	2	100·0	—	—	—	—	—	—	—	—	—	—	—	2	—	—
1862	1	D.	8,380	—	—	—	—	—	—	—	—	1	—	2	—	100·0
1839	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—

SILK.—IRELAND.

1862	1	—	1,182	—	—	—	—	—	—	—	—	—	—	1	—	—
1862	—	—	—	1	—	14	—	11	—	—	—	—	—	1	—	—

THE HOSIERY

There having been no separation in former Returns between the hosiery progress. Henceforth, however, this will be remedied. At the present socks, the hosiery machinery in the Table is estimated to produce yarn annually.

HOSIERY.—ENGLAND.

Year.	Number of Factories.	Number of Hand Frames.	Number of Heads of Circular Frames.	Number of Feeders on this Number of Heads.	Number of Flat Frames moved by Power.	Number of Inches of the same.	Indicated Horse Power employed.	
							Steam.	Water.
1862	4	8	256	397	155	5,989	18	20
"	27	272	1,713	1,815	500	34,507	305	—
"	34	263	4,912	6,302	693	71,150	74	6
Total -	65	543	6,881	8,514	1,348	111,646	397	26

HOSIERY.—SCOTLAND.

Year.	Number of Factories.	Number of Hand Frames.	Number of Heads of Circular Frames.	Number of Feeders on this Number of Heads.	Number of Flat Frames moved by Power.	Number of Inches of the same.	Amount of Moving Power.	
							Steam.	Water.
1862	1	9	11	5	1	102	22	—
"	3	164	83	100	33	1,724	28	20

573

SILK.—SCOTLAND.

Persons employed.																Increase per Cent.		County.	Indicated Horse Power employed 1862.	
Children.										Adolescents and Adults.										
Males under 11 Years.	Increase per Cent.	Females under 11 Years.	Increase per Cent.	Total.	Males between 13 & 11.	Increase per Cent.	Females between 13 & 11.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
5	—	8	—	13	7	—	25	—	32	110	—	300	—	410	—	—	—	Lanark	223	-
1	—	1	—	12	12	71·4	77	204·0	89	8	D.	418	39·3	503	22·6	22·6	—			
—	—	1	—	1	6	D.	71	D.	77	113	—	430	2·8	543	7·9	—	—			
—	—	—	—	—	8	33·3	122	71·8	130	154	36·2	729	69·5	883	53·4	—	65·6			
1	—	11	—	12	2	—	20	—	20	68	—	247	—	315	—	—	—	Renfrew.	45	-
—	—	—	—	—	15	650·0	87	335·0	102	19	D.	269	8·9	338	7·3	—	—			
—	—	—	—	—	1	—	82	D.	83	47	147·3	247	D.	294	D.	—	—			
—	—	—	—	—	9	—	54	D.	63	39	D.	182	D.	221	D.	—	D.			
—	—	—	—	—	—	—	—	—	—	38	—	—	—	38	—	—	—	Edinburgh.	—	-

SILK.—IRELAND.

—	—	—	—	—	37	—	21	—	28	33	—	78	—	111	—	—	—	Wicklow	—	30
—	—	—	—	—	—	—	—	—	—	3	—	20	—	23	—	—	—	Antrim	2	30

TRADE.

and cotton trades, there are consequently no statistics to evidence its time, without reckoning gloves or other hosiery than stockings and 79,599,000 dozen pairs of stockings, and to consume 126,546,500 lbs. of

HOSIERY.—ENGLAND.

Persons employed.						County.
Males between 13 and 18 Years.	Females above 13 Years.	Males above 18 Years.	Total, Males.	Total, Females.	Grand Total.	
39	340	119	158	340	498	Derby.
203	706	547	750	706	1,456	Leicester.
169	1,062	878	1,047	1,062	2,109	Nottingham.
411	2,108	1,544	1,955	2,108	4,063	

HOSIERY.—SCOTLAND.

Children under 13 Years.		Males between 13 and 18 Years.	Females above 13 Years.	Males above 18 Years.	Total.		Total, both Sexes.	County.
Males.	Females.				Males.	Females.		
—	—	1	18	7	8	18	26	Dumfries.
—	—	8	199	191	199	199	398	Roxburgh.

HEMP.—ENGLAND.

Year.	Number of Factories.	Number of Spindles.	Number of Power Looms.	Number of Power-loom Weavers.	Indicated Horse Power employed. Steam.	Indicated Horse Power employed. Water.
1862	1	150	—	—	3	—
"	1	100	—	—	30	—
"	1	14	1	1	6	—
Total - -	3	264	1	1	39	—

HEMP.—SCOTLAND.

Years.	Factories. Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	Increase per Cent. 1839 to 1850.	Increase per Cent. 1851 to 1862.
1862	1	—	2,116	—	—	—	—	—	—	—	—	—	1	—	—
1862	1	—	200	—	—	—	—	—	—	—	—	—	1	—	—

JUTE.—ENGLAND.

Year.	Number of Factories.	Number of Spindles.	Number of Power Looms.	Number of Power-loom Weavers.	Indicated Horse Power employed. Steam.	Indicated Horse Power employed. Water.
1862	1	320	—	—	12	—
"	1	60	—	—	20	—
"	1	240	—	—	18	—
"	1	—	—	—	12	—

JUTE.—SCOTLAND.

Years.	Factories. Spinning.	Increase per Cent.	Total Number of Spindles.	Weaving.	Increase per Cent.	Number of Power Looms.	Increase per Cent.	Number of Power-loom Weavers.	Spinning and Weaving.	Increase per Cent.	Miscellaneous Mills.	Increase per Cent.	Total.	Increase per Cent. 1839 to 1850.	Increase per Cent. 1851 to 1862.
1862	12	—	28,094	2	—	406	—	364	10	—	—	—	24	—	—
1862	1	—	1,000	—	—	48	—	36	1	—	—	—	2	—	—
1862	—	—	1,444	—	—	100	—	84	1	—	—	—	1	—	—

JUTE.—IRELAND.

1862	2	—	1,824	—	—	—	—	—	—	—	1	—	3	—	—
1862	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—

In 1861 we imported of jute 104,455,456 lbs.,

HEMP.—ENGLAND.

Persons employed.						County.
Males between 13 and 18 Years.	Females above 13 Years.	Males above 18 Years.	Total, Males.	Total, Females.	Grand Total.	
4	—	1	5	—	5	Middlesex.
27	12	12	39	12	51	Surrey.
2	3	1	3	3	6	Somerset.
33	15	14	47	15	62	

HEMP.—SCOTLAND.

Persons employed.												Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.											
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1861.		Steam.	Water.
—	—	—	—	—	57	—	485	—	542	—	—	—	Edinburgh	80	—
—	—	—	—	—	1	—	2	—	3	—	—	—	Lanark -	8	—

JUTE.—ENGLAND.

Persons employed.						County.
Males between 13 and 18 Years.	Females above 13 Years.	Males above 13 Years.	Total, Males.	Total, Females.	Grand Total.	
3	26	4	7	26	33	Dorset.
1	24	6	7	24	31	Lancaster.
1	23	3	4	23	27	Middlesex.
1	11	4	5	11	16	Surrey.

JUTE.—SCOTLAND.

Persons employed.											Increase per Cent.		County.	Indicated Horse Power employed, 1862.	
Children.					Adolescents and Adults.										
Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Males.	Increase per Cent.	Females.	Increase per Cent.	Total.	Increase per Cent.	1839 to 1850.	1851 to 1862.		Steam.	Water.
24	—	54	—	78	1,701	—	3,127	—	4,828	—	—	—	Forfar -	1,494	20
—	—	—	—	—	83	—	133	—	216	—	—	—	Lanark -	153	—
—	—	—	—	—	46	—	328	—	374	—	—	—	Renfrew -	90	40

JUTE.—IRELAND.

10	—	17	—	27	143	—	242	—	385	—	—	—	Antrim -	190	—
—	—	—	—	—	53	—	4	—	57	—	—	—	Down -	55	—

and of hemp 88,758,648 lbs.

General State of Trade.

I have to offer only a few general observations on the state of trade. I need not detail to you in what condition the cotton trade has been for months and what it still is, nor is it within my province to speculate on its future. It has been already shown in this Report, that when every spindle might have been supposed to be at work, their requirements of raw material was equal to 1,051,623,380 lbs. per annum. And if this sum be separated into the quantities of cotton of different countries taken for home consumption in 1860, there will not be much difficulty in discovering what is necessary to be received hereafter from America, or if not, then from other countries, if any there are, which can supply the same kind of cotton as America has hitherto done, or, how much machinery will have to be altered, so that it may be adapted to the kind of cotton which we are able to obtain from other countries, to complete the quantity which the existing spindles demand. For example, the home consumption of cotton in bales, and the price per lb., for the last five years, has been as follows:—

Close of December.	American.	Price per lb.	Surat.	Price per lb.	Brazil.	Price per lb.	Egyptian.	Price per lb.	West Indian.	Price per lb.
		d.		*d.*		*d.*		*d.*		*d.*
In 1858 -	31,500	18	6,200	6½	2,200	8½	1,750	9	Not given.	
„ 1859 -	36,700	20	3,400	5½	2,000	8½	1,900	9	—	—
„ 1860 -	41,000	19	3,330	5½	2,150	9½	1,820	10	—	—
„ 1861 -	34,700	28	6,700	8½	1,620	13½	2,100	14½	260	12
„ 1862 -	4,800	54	13,600	18½	2,000	24	2,300	28	300	24

Thus we see that, whilst in 1860 the consumption of cotton from America was 41,000 bales per week, it was reduced in 1862 to 4,800, whilst the price of it advanced from 1*s.* 6*d.* per lb. to 4*s.* 6*d.*

The gross import of cotton from each of these countries in bales was also as follows, in 1860:—

America.	East Indies.	Brazil.	Egypt.	Other Countries.
2,581,020	562,500	103,900	109,340	9,740

so that whilst from all other countries we imported 785,480 bales, from America alone, the amount was 2,581,020 bales. Unhappily, therefore, the duration of the present condition of the cotton trade cannot well be estimated, for in the language of Messrs. Stead, the eminent cotton brokers of Liverpool—

"The future supply of cotton continues to excite the gravest apprehension; the chief source is still closed against us, and appears likely to be for some time to come. Should the war happily terminate earlier than at present appears probable, we see no reason to look for the abundance which some anticipate. The most reliable estimates of the quantity of cotton now in the Southern States are about 3,000,000 bales; but this quantity is likely to be considerably lessened during the present winter.

The Federal gun-boats, recently advancing up the Mississippi, have found the cotton everywhere destroyed, and very little new planted. This will be the case wherever the gun-boats advance. Another important point must not be lost sight of, the chief part of last year's crop was kept on the plantations, where, in many cases, there is no provision for storing it, and it is well known that large quantities have, from this cause, been seriously injured. The expectation of an overwhelming quantity of cotton when the war closes, we conceive to be founded upon great misconception. Whilst the war continues, however, we must look elsewhere than to America for cotton. What are our prospects of supply from other countries? From India we may possibly receive 250,000 bales more than this year; from Egypt, Brazil, and other countries, 150,000 more; but this will utterly fail to meet the necessities of the case, and restore prosperity to this great branch of commerce.

"The prospects for the coming year are far from encouraging; the cloud in the West still darkens the future. We are told, indeed, that the worst is past, and we shall soon cease to depend upon America for this important staple; that dependence has existed too long to be thus easily put aside; if the development of new sources of supply is to solve the present difficulty, we must wait long and patiently for its solution. Let us rather hope that the continued defeats sustained by the Federal arms will convince the Northern States of America how hopeless is the contest in which they are engaged; then will the paralyzed industry of Lancashire assume its wonted vigour; the distress now borne with such noble fortitude, and relieved with so lavish a hand, pass away, and a new era of prosperity dawn upon us."

I have kept my Report open to enable me to add, by way of appendix, a table of the employment of some of the cotton mills in my district in the last week in November of this year, in the three subdivisions of Hyde, Stockport, and Wigan,—Burnley, Colne, and their neighbourhoods, and Bolton and its neighbourhood, believing that these faithfully and fairly represent the aggregate condition of the trade in all the districts of the kingdom.

TABLE of the STATE of EMPLOYMENT in the COTTON MILLS under the FACTORY ACTS, in the Districts of STOCKPORT, HYDE, and WIGAN, BURNLEY, COLNE, and Neighbourhoods, and BOLTON and its Neighbourhood, at the close of November 1862.

Number of Mills.	Number of Spindles generally in use.	Number of Looms generally in use.	Number of Persons usually employed.	Employment per Week.	Total Wages per Week for full Time.	Loss in Wages per Week.	District.
					£	£	
16	68,277	356	1,126	Full time -	—	—	Hyde, Stockport, and Wigan.
103	1,426,681	12,892	18,854	Standing -	—	9,898	
17	228,100	2,887	3,722	40 to 50 hours	—	651	
33	371,844	5,180	6,808	30 to 40 hours	—	1,787	
17	477,753	7,836	7,589	20 to 30 hours	—	2,654	
15	170,834	2,780	2,707	Under 20 hours.	—	1,240	
201	2,743,489	31,931	40,806		21,423	16,230 75·4 per cent.	

Number of Mills.	Number of Spindles generally in use.	Number of Looms generally in use.	Number of Persons usually employed.	Employment per Week.	Total Wages per Week for full Time.	Loss in Wages per Week.	District.
					£	£	
33	500,672	5,632	3,324	Full time -	—	—	Burnley, Colne, &c.
76	308,574	16,515	6,543	Standing -	—	3,434	
18	140,324	2,353	2,409	40 to 50 hours	—	421	
21	195,657	3,616	1,729	30 to 40 hours	—	454	
16	76,084	5,552	2,834	20 to 30 hours	—	990	
29	109,169	3,750	1,769	Under 20 hours.	—	770	
193	1,330,480	37,418	18,608		9,764	6,069 62·1 per cent.	
77	1,482,095	6,472	14,509	Full time -	—	—	Bolton and its neighbourhood.
60	1,196,798	7,296	8,859	Standing -	—	4,650	
27	364,372	7,122	7,045	40 to 50 hours	—	1,231	
36	254,524	4,688	4,253	30 to 40 hours	—	1,113	
20	375,764	1,446	3,877	20 to 30 hours	—	1,352	
32	247,922	3,723	3,957	Under 20 hours.	—	1,730	
252	3,921,475	30,747	42,500		22,312	10,076 45·1 per cent.	

In this table it may be noticed that in Stockport and the neighbourhood 108·3 per cent. of the spindles and 67·7 per cent. of the looms; in Burnley and its neighbourhood 30·1 per cent. of the spindles, and 79·0 per cent. of the looms; and in Bolton and the neighbourhood 43·9 per cent. of the spindles, and 31·1 per cent. of the looms, were entirely standing. Thus the aggravated distress of the Stockport district both in spinning and manufacturing is manifest.

There appears, too, a marked difference between the employment and the want of it in the three subdivisions, and not one of them is an average; but if we add them together and take the per-centage, then we obtain what I believe to be a fair representation of the condition of the whole trade, namely, that 60·3 per cent. of the spindles and 58· per cent. of the looms were entirely standing, only a very few were working full time, and the remainder, at short intervals. The scarcity of employment at Stockport and Wigan, as compared with Burnley, and particularly with Bolton, may probably be traced to the processes of manufacture in which the mills in each division are engaged.

The average proportion of spindles and looms to each factory is as follows;—

	Spindles.	Looms.
In Stockport	13,649	158 to a factory.
In Burnley, &c.	6,893	193 ,,
In Bolton	15,561	122 ,,

So that, so to speak, Bolton spins and weaves for itself, and spins also for Burnley, whilst Stockport weaves the produce of its own spinning. Hence its double amount of distress. Then, if we look at the loss of weekly wages among these

industrial communities, we can understand how greatly the whole state of trade must have been and be affected by it. In Stockport there has been a weekly loss to the trading community equal to 16,000*l.* out of 21,000*l.*; in Burnley to 6,000*l.* out of 9,000*l.*; in Bolton, to 10,007*l.* out of 22,312*l.*; and all classes, therefore, have greatly suffered. There is one thing more which this Table exhibits, which cannot be lightly passed by, namely, what is the truth as to the dealings of the employers with the employed. If some of them, by a remarkable foresight, are working even now to great profits, there are others who may be working to all the greater loss, simply because they are working full time. And setting aside the few who are working from 30 to 40 hours a week, as working as they best may for themselves, it cannot be doubted that those who have been working from 20 to 30 hours a week, and under 20 hours, have been doing so for the purpose only of giving employment to their people, and from a feeling and motive of the highest humanity, because with the least employment all the charges against an establishment are retained, and the loss therefore is absolute.

The total number of persons usually employed in the mills of these sub-divisions is 101,914, or, upon the average, 157 persons to a factory; so that they are by no means small establishments. In fact, the greater part of the cotton mills in my district are of considerable magnitude. Of these persons 34,256 were totally out of work; 18,959 were employed full time; 17,310 were working from 40 to 50 hours a week; 12,790 were working from 30 to 40 hours a week; and 22,733 may be said to have been employed for the sake of affording them bread.

After all, it is consolatory to know that, whatever may have been the cause of it, out of this great national calamity, for so it may well be called, important benefits are likely to arise to all our industrial districts; for the example which the cotton operatives have set in this most trying time cannot but be hereafter remembered whenever, if ever, a similar time may unhappily occur. With the privations which both masters and workpeople have suffered, there has also been a sympathy awakened between them, and they have gained a knowledge of one another, which could scarcely have been brought about by any other cause. In the minds of the upper and middle classes too, there is evidently a full conviction, that to the benefits of education it is owing that the people, which would once have been so turbulent and unruly in these districts under such sufferings, have borne them with the most exemplary patience; and hence the readiness of these classes to establish schools of various kinds, particularly for females, in which they may be taught subjects which belong peculiarly to females; and generally, to afford, not reading and writing merely, but a religious, social, and moral education;

one which fits men to become good husbands and fathers, and women to be exemplary wives and mothers: and so in these schools, hundreds have been and are being taught, what they never would have learned but for this cotton panic. There has, in fact, been impressed upon thousands of hearts a living photograph of new ties and fresh relations between master and man, and man and man, and home and home, which for the want of the opportunity has hitherto been kept out of the sunlight; and there has been brought into existence a sisterhood between the females of the upper and working classes, by the very contact between them in these schools, which has made and will leave an uneffaceable impression upon both, and which will exert its influence long after this panic is over; and thus this calamity, which has been so universal and so overwhelming, will be as widely as providentially beneficial.

On the woollen and worsted and flax trades I have not many observations to make. Generally, as far as I have been able to observe, they have been in a satisfactory and profitable state all the year. Of the silk trade it is said that it suffers from two causes especially, partly from the caprices of fashion, and partly from the effects of foreign competition. In the ribbon trade there is great depression, and much consequent suffering. The real condition of Coventry in November was, that about a fourth of the looms only were employed, and that at a price far below the average. It has been stated to me that a preference is given by the bonnet milliner, "who is now the great consumer of ribbons, instead of the draper, to foreign goods, "mainly because they are of a better colour, and produce a "better effect with less silk, though the Coventry ribbon "possesses more body and will wear better. Perhaps one of "the most healthy features of the trade at the present time "is that all the houses who are doing a large amount of "business are undoubtedly possessed of capital, which for a "long time has been just the reverse. But from the very "nature of the trade it must be subject to great fluctuations. "Perhaps one of the worst features for the future is that "our leading manufacturers are beginning to lose faith in "the 'better times coming,' and are looking about for new "trades to take the place of the old. It is very difficult to "say what will be the future of the ribbon trade in Coventry, "but all our leading men, with whom I have conversed, "agree with me in thinking that it will be a long time ere "the same number of people will be again employed in the "ribbon trade that has been. From the cautious manner in "which the trade is now conducted, there is sure to be a flat "time for some months between the seasons."

Of the lace and hosiery trades it is reported as follows;—

"Despite the unsatisfactory condition of the cotton market,

" the lace trade, as far as the foreign market is concerned, " seems to have enjoyed unprecedented prosperity during " 1862. The hosiery trade also continues to improve, and " the scarcity of cotton seems to have produced a rise in the " price of the manufactured article, each dozen pairs of " stockings sent abroad being valued at 6*d.* more than usual."

It was my intention to have added to this Report the various rates of wages for each county, in each kind of manufacture, but I have been unable to do so for want of time. At a future period I hope to be able to give them, as they are exceedingly interesting, varying, as they do, between the most extraordinary limits.

The following grants have been made with your sanction from the Factory Fine Fund of my district to the undermentioned schools in which factory workers are educated, viz.:—

	£	*s.*	*d.*
To the Stockport National School - -	10	0	0
„ Roman Catholic School, Stockport -	20	0	0
„ National School, Shuttleworth - -	10	0	0
„ „ „ Newton Moor - -	15	0	0
„ Coventry Sewing School - -	10	0	0

The following gentlemen have been appointed certifying surgeons:—

ENGLAND.

James Hurd, Esq., M.D., Frome.
James Hughes, Esq., Middlewich.
W. J. Davies, Esq., Newport.
W. A. Martin, Esq., Horwich.
W. E Bower, Esq., Nantwich.
T. B. Eames, Esq., Farnworth.

IRELAND.

W. M. Weir, Esq., Dromore.

WALES.

J. Hughes, Esq., Amlwch.
J. Jones, Esq., Park glis, Bethel.
J. J. Jones, Esq., Trefdraeth, Anglesey.
Wm. M. Williams, Esq., Pwlheli.

I have the honour to remain,
Sir,
Your most obedient Servant,

ROBERT BAKER,
Inspector of Factories.

To the Right Honourable
The Secretary of State
for the Home Department.

Appendix No. 1.

Return of Prosecutions for Offences against the Factories Regulation Acts, in the District of Robert Baker, Esq., during the Six Months ended 31st October 1862.

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, and Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	Remarks.
1862.			*Informations laid by Mr. Kent.*	£ s. d.	£ s. d.	
Oct. 8	John Pugh - - - -	Colonel Herbert, Captain Drewe, and — Stephens, Esq.; Town Hall, Newtown.	Employing a child without a surgical certificate -	1 0 0	1 0 0	Withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing a child without a surgical certificate -	- -		
,,	J. C. Davies ,, - -	Colonel Herbert, Captain Drewe, and — Stephens, Esq.; Town Hall, Newtown.	Employing a child without a surgical certificate -	1 0 0	1 9 6	Withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing a child without a surgical certificate -	- -		
,,	,, ,,	,, ,,	Employing a young person without a surgical certificate.	1 0 0		
			Informations laid by Mr. Jones.			
July 24	Thomas and Joseph Heaton, of Lostock, near Bolton.	Bolton: before John Hick, and Alfred Barnes, Esqrs.	Employing three young persons without surgical certificates.	6 0 0	1 19 0	
Aug. 4	Knowles and Green, of Tong, near Bolton.	Bolton: before Peter Ainsworth, and P. R. Arrowsmith, Esqrs.	Employing five young persons without surgical certificates.	10 0 0	3 2 6	
			Information laid by Mr. Haydon.			
May. 19	Messrs. Arnold and Sons, Macclesfield.	Jeremiah Clarke, John Cooke, Sam. Barton, and Wm. Bullock, Esqrs.	Employing twenty-five young persons without surgical certificates.	20 0 0	10 12 6	Fifteen cases withdrawn at the request of the Bench.

			Informations laid by Mr. Haydon, acting pro tem. for Mr. Darkin.				
June 7	Hugh M. Beck, Jennymount Mill, Belfast.	W. Tracy, Esq., and Dr. Murney, Howard Street, Belfast.	For employing fifty women and young persons after 2 p.m. on 24th May, being Saturday.	50 0 0	12 10 0		Twenty-five cases withdrawn on payment of costs.
,,	Ligoniel Spinning Company, Ligoniel.	,, ,,	For employing twenty-five women and young persons after 6 p.m. on 27th May.	20 0 0	5 10 0		Fifteen cases withdrawn as above.
,, 10	Gordon and Co.. Upper Falls Mill, Belfast.	W. Tracy, Esq., and Wm. Dunville, Esq.	For employing fifty-four young persons and women after 6 p.m. on 5th June.	20 0 0	6 12 6		Forty-four cases withdrawn as above.
,, 18	Johnson and Carlisle, Crumlin Road, Belfast.	W. Tracy, Esq., and the Mayor of Belfast.	For employing forty-two young persons and women before 6 a.m. on 13th June, being Saturday.	- -	- -		Cases dismissed, the hands denying, in evidence, that their frames were set on.
,, 26	Boyd, Brothers, Boyd's Mill, Belfast.	T. B. Lyons, Esq., Dr. Murney, and J. Clarke, Esq.	For employing five women, reeling, after 2 p.m. on 21st June.	2 0 0	0 12 6		Four cases withdrawn as above.
,,	G. W. Charters, Falls Road, Belfast.	,, ,,	For employing five women, reeling, during their dinner hour on 30th May.	2 0 0	0 12 6		Four cases withdrawn as above.
,,	Kennedy and Co., Falls Rod., Belfast.	,, ,,	For employing two young persons cleaning up after 2 p.m. on 21st June.	2 0 0	0 3 6		One case withdrawn as above.
Sept. 22	Hugh M. Beck, Jennymount Mill, Belfast.	T. B. Lyons, Esq., Dr. Murney, and Capt. Verner.	For employing fifteen young persons during their dinner hour on 18th August.	- -	2 8 0		These cases were withdrawn in consequence of the magistrates deciding that factory prosecutions in Ireland were not exempted under the Irish Petty Sessions Act, and that consequently all informations and all summonses in Irish factory cases must be stamped and signed by a magistrate, and that all summonses must be served at the private residence of the witness, and not at his or her place of employment.
,,	,, ,,	,, ,,	For having a false notice of meal hours hung up in the factory.	- -			
,,	Waring and Duncan, Mountain Mill, Ligoniel.	,, ,,	For employing twenty-five women and young persons after 6 p.m. on 18th August.	- -	2 10 6		

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, and Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
1862.			*Informations laid by Mr. Buller.*	£ s. d.	£ s. d.	
Sept. 20	Mary Jones, Courtgwillym, near Bridgend, Glamorganshire.	Richard Franklyn and Charles Knight, Esqrs., and Captain Quin; Town Hall, Bridgend.	Employing three young persons after 6 p.m. -	1 0 0	1 0 6	Two cases withdrawn on payment of costs.
„ 24	John Jones, Forest Factory, near Newbridge, Glamorganshire.	William Perkins, Esq., and the Rev. Evan Morgan; Newbridge, Glamorganshire.	Employing three young persons and one female (adult) after 6 p.m.	1 0 0	1 10 3	Three cases withdrawn on payment of costs.
„ 26	William Llewellyn, Lamb and Flag Factory, Glynneath, near Neath.	Howel Gwyn and Griffith Llewellyn, Esqrs.; Town Hall, Neath.	Employing three young persons and two children after 6 p.m.	2 0 0	3 9 0	Four cases withdrawn on payment of costs.
Oct. 1	John Howell, Mynyddislwyn, near Blackwood, Monmouthshire.	Frederick Levick, Esq., and the Rev. Edward Leigh; Tredegar, Monmouthshire.	Employing four young persons after 2 p.m. on Saturday.	1 0 0	2 15 0	Three cases withdrawn on payment of costs.
„ 8	Samuel F. Harris, Glyn Gwenffrwd, near Abergavenny, Monmouthshire.	The Honourable W. P. Rodney, Rev. James Farquhar, W. W. Manning, and Thomas Davis, Esqrs.; Town Hall, Abergavenny.	Employing two young persons and two children after 2 p.m. on Saturday.	- -	1 14 0	Withdrawn on payment of costs.
			Information laid by Mr. May.			
July 21	William Kirk, Burnley -	Thomas Hordern Whittaker and John Heelis, Esqrs.; Burnley.	Employing two young persons without surgical certificates.	2 0 0	1 0 0	One summons withdrawn on payment of costs, in consideration of the state of trade.

Appendix No. 2.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.& F.
Causing death - - -	2	1	–	–	–	–	2	1	3
Amputation of right hand or arm	2	3	–	–	–	–	2	3	5
Amputation of left hand or arm	–	1	2	–	–	–	2	1	3
Amputation of part of right hand	4	8	3	7	1	1	8	16	24
Amputation of part of left hand	4	4	2	5	1	1	7	10	17
Fracture of limbs and bones of trunk - - - -	6	1	5	2	2	–	13	3	16
Fracture of hand or foot - -	5	5	3	8	1	1	9	14	23
Injuries to head and face -	6	4	5	7	1	–	12	11	23
Lacerations, contusions, and other injuries not enumerated above - - -	37	33	56	52	8	3	101	88	189
Total - -	66	60	76	81	14	6	156	147	303

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.& F.
Fracture of limbs and bones of trunk - - - -	3	1	1	1	–	–	4	2	6
Injuries to head and face -	1	–	–	1	–	–	1	1	2
Lacerations, contusions, and other injuries not enumerated above - - -	6	1	2	1	–	–	8	2	10
Total - -	10	2	3	3	–	–	13	5	18

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For Her Majesty's Stationery Office.

.587

REPORTS

OF THE

INSPECTORS OF FACTORIES

TO

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE
FOR THE HOME DEPARTMENT

FOR THE

HALF YEAR ENDING 30TH APRIL 1863.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1863.

7348.

REPORTS

TO THE RIGHT HONOURABLE SIR GEORGE GREY, BART.

Her Majesty's Principal Secretary of State for the Home Department.

			Page
Joint Report of Inspectors for the half-year ending	30th April	1863	3
Report by Alexander Redgrave, Esq.	ditto	ditto	7
Report by Robert Baker, Esq.	ditto	ditto	39

591

Half-yearly Joint Report of the Inspectors of Factories.

Factory Inspectors' Office,
3rd June 1863.

Sir,

Having met this day and read our separate reports, we are happy in being able to inform you that nothing has occurred in our Districts, to which further special notice is necessary.

We have the honour to be,
Sir,
Your obedient servants,
ALEX^{R} REDGRAVE.
ROBERT BAKER.

The Right Hon.
The Secretary of State
for the Home Department,
&c. &c. &c.

Appendix No. 1.

General Abstract, showing the Total Number of Accidents reported to the Inspectors of Factories during the Six Months ended the 30th April 1863.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
Causing death	10	3	5	–	–	–	15	3	18
Amputation of right hand or arm	2	1	1	–	2	–	5	1	6
Amputation of left hand or arm	3	1	1	–	–	–	4	1	5
Amputation of part of right hand	20	18	19	33	4	4	43	55	98
Amputation of part of left hand	14	13	16	18	4	2	34	33	67
Amputation of any part of leg or foot	3	–	–	–	–	1	3	1	4
Fracture of limbs and bones of trunk	32	8	22	12	7	2	61	22	83
Fracture of hand or foot	18	18	20	16	8	4	46	38	84
Injuries to head and face	12	22	19	22	8	2	39	46	85
Lacerations, contusions, and other injuries not enumerated above	162	157	176	190	43	24	381	371	752
Total	276	241	279	291	76	39	631	571	1202

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
Causing death	1	3	–	–	–	–	1	3	4
Amputation of part of left hand	–	–	–	–	–	1	–	1	1
Fracture of limbs and bones of trunk	2	3	7	–	3	–	12	3	15
Fracture of hand or foot	–	–	–	1	–	–	–	1	1
Injuries to head and face	4	4	4	2	1	1	9	7	16
Lacerations, contusions, and other injuries not enumerated above	23	6	9	6	1	1	33	13	46
Total	30	16	20	9	5	3	55	28	83

Appendix No. 2.

Summary of the Total Number of Informations and Convictions, and the Amount of Penalties and Costs, in the Districts of the Four Inspectors, during the Six Months ended the 30th of April 1863.

Description of Offence.	Number of Informations.	Result.			Penalties imposed.							
		Convictions.	Withdrawn on Payment of Costs.	Dismissed.	5*s.*	20*s.*	40*s.*	50*s.*	£3.	£4.	£5.	£10.
Neglecting to fence mill gearing	1	—	—	1	—	—	—	—	—	—	—	—
Neglecting to fence mill gearing whereby bodily injury was caused	1	1	—	—	—	—	—	—	—	—	—	1
Employing children and young persons without registering their names and date of first employment	51	28	21	2	—	3	24	1	—	—	—	—
Employing children and young persons without surgical certificates	59	30	16	13	—	7	20	—	—	—	3	—
Employing children before noon and after 1 o'clock P.M. of the same day	14	1	3	10	—	1	—	—	—	—	—	—
Employing children without school vouchers	19	6	3	10	—	6	—	—	—	—	—	—
Employing children, young persons, and females at night.	1	1	—	—	—	—	1	—	—	—	—	—
Employing children, young persons, and women after 6 o'clock P.M.	89	46	20	23	1	4	40	—	—	1	—	—
Employing children, young persons, and women after 7 o'clock P.M.	13	13	—	—	—	12	1	—	—	—	—	—
Employing young persons, and women after 2 o'clock on Saturday	27	27	—	—	—	22	—	—	5	—	—	—
Employing young persons and women during meal hours	28	24	4	—	—	23	—	—	1	—	—	—
Parents employing or conniving at the illegal employment of their children	2	2	—	—	2	—	—	—	—	—	—	—
Parents neglecting to cause their children to attend school	2	2	—	—	2	—	—	—	—	—	—	—
Neglecting to give notice of occupation	1	1	—	—	—	—	1	—	—	—	—	—
Not keeping a register	1	1	—	—	—	—	1	—	—	—	—	—

Description of Offence.	Number of Informations.	Result.			Penalties imposed.							
		Convictions.	Withdrawn on Payment of Costs.	Dismissed.	5*s.*	20*s.*	40*s.*	50*s.*	£3.	£4.	£5.	£10.
Not lime washing, as required by law - -	1	—	1	—	—	—	—	—	—	—	—	—
Not hanging up abstract of acts, notices of hours of work, meal times, &c. -	2	—	2	—	—	—	—	—	—	—	—	—
Making false entries in the register of young persons-	5	3	2	—	—	1	—	—	—	—	2	—
Wilful obstruction of the sub-inspector in the execution of his office -	2	2	—	—	—	—	—	—	1	—	1	—
Total	319	188	72	59	5	79	88	1	7	1	6	1

The Total amount of Fines inflicted -	-	-	£ 323 15 0
The Total amount of Costs -	-	-	£ 129 4 6

REPORT OF ALEXANDER REDGRAVE, Esquire, Inspector of Factories, for the Six Months ended the 30th April 1863.

10, *Whitehall*,
26th May 1863.

SIR,

I BEG to present to you my report upon the state and condition of the factories and other establishments under inspection. I have visited factories, printworks, bleaching and dyeing works, open air bleach works, and schools, at Manchester, Ashton-under-Lyne, Staleybridge, Oldham, Lees, Shaw, Royton; Rochdale, Rawtenstall, Middleton; Blackburn, Church, Accrington, Haslingden; Preston, Chorley, Kirkham; Glasgow, Paisley; Hawick, Galashiels, Selkirk; Edinburgh, Leith, Musselburgh; Leven; Perth, Stanley, Crieff, Comrie; Alloa, Tillicoultry; in the counties of Essex, Suffolk, and Norfolk, and in and about the metropolis.

The Sub-Inspectors have, as usual, been assiduous in the performance of their duties. I referred in my last report to the services performed by Mr. Campbell at Glasgow, Mr. Oram at Ashton-under-Lyne, and Mr. Henderson at Blackburn, in connexion with the administration of the relief fund; and I am able, from personal observation, to testify to the appreciation of their services in their several localities.

I have no special remarks to make upon the prosecutions during the last six months.

The total amount of fines imposed was 241*l.*

The following grants have been made with your sanction since the date of my last report:—

	£
Towards the establishment of a Day School for factory children at Ovendon Cross, near Halifax -	50
To the Staleybridge and Dukinfield Day Schools -	20
To the Presbyterian School, Mount Street, Salford -	10
To the Wesleyan School, Union Street, Accrington -	10
To the Independent School, Kipping, near Bradford	10
To the National School, St. James', Clitheroe -	10
To the National School, St. Luke's, Blackburn -	10
To the National School, St. Margaret's, Ipswich -	10
To the National School, Horbury, near Wakefield -	10
To the National School, Eastwood, near Keighley -	5
To the National School, Plechgate, St. John's, Blackburn - - - - - -	5
To the National School, Silsden, near Keighley -	5
To the Town School, Pudsey, near Leeds - -	5
	160

On the 1st of January last, the Act passed during the session of 1862, intituled, "An Act to prevent the Employ-

" ment of Women and Children during the Night in certain " Operations connected with Bleaching by the Open-air " Process," came into force. The process of bleaching by the open air was exempted from the provisions of the Bleaching and Dyeing Works Act (23 & 24 Vict. c. 78.), upon the belief that the practice of employing females during the night did not exist in those establishments; but it having appeared that the practice did prevail in some localities, the above-named Act was passed by the Legislature, in order to prevent the employment of children, young persons, and females between the hours of eight at night and six of the following morning. Shortly before the coming into effect of the Act, I communicated to the occupiers of all the open-air bleachworks in my district the passing of the above-named Act, and forwarded to them a notice containing an abstract of the Act, and suggested that such abstract should be hung up in their premises for the information of their workpeople. The following are copies of the circular and of the notice:—

" Factory Inspector's Office,
" 10, Whitehall, London, S.W.,
" 15th December 1862.

" GENTLEMEN,

" I BEG to inform you that the Bleachfields Act (25 Vict. c. 8) will come into operation on the 1st January 1863.

" I enclose an abstract of the enactments contained in the Act, which I would suggest should be hung up at the entrance of your premises by which the workpeople enter to and depart from their work.

" The hours of work must be regulated by a public clock approved of by myself or by the Sub-Inspector, and at our first visit to your establishment we will approve of a suitable clock.

" If you should find it necessary at any time to employ persons during the night, *i.e.*, between 8 p.m. and 6 a.m., unless for the purpose of recovering lost time, as explained in the accompanying abstract, I would suggest that you should satisfy yourselves that every person so employed (who must be a male) is *really* above 18 years of age; as in case of the employment of persons under that age the responsibility rests with the occupier of the premises.

" I am,
" Gentlemen,
" Your obedient Servant,
" ALEX. REDGRAVE,
" Inspector of Factories."

" 25 Vict. c. 8.

" An Act to prevent the Employment of Women and Children during the Night in certain Operations connected with Bleaching by the Open-air Process.

" *Nightwork of Children, young Persons and Women prohibited.*

" No male person under the age of 18 years, and no female what-

ever, may be employed in any description of work between eight o'clock in the evening and six o'clock in the morning (except to recover lost time as under-mentioned), in any building, buildings, or premises, in one or more of which any process previous to packing is carried on in the occupation of bleaching, dyeing, or finishing of any yarn or cloth of cotton, silk, wool, or flax, or any of them, or any mixture of them, or any yarn or cloth of any other material or materials, including the occupation of bleaching by the open-air process, and in one or more of which processes steam or water or other mechanical power is used or employed.

" *Time lost by Waterwheel may be recovered.*

If the employment of females and young persons shall have been suspended during any day or part of a day, by reason of a deficiency of excess of water in the stream which, by means of a waterwheel, should drive the machinery or part of the machinery, but shall have failed so to do, such females and young persons may be employed after eight of the clock of the night following such day (except on Saturday), for the number of hours during which their work was suspended during the day.

" Name and Address of the Inspector of Factories for the District.

ALEX. REDGRAVE, ESQ.,
10, Whitehall,
London, S.W.

" Name and Address of the Sub-Inspector of Factories for the District.

" Clock by which the Hours of Work are regulated.

" Approved this day of 186 .

" For the due enforcement of this Act there shall be applicable all the powers, provisions, and penalties of the Act of the 7th and 8th years of Victoria, chapter 15, intituled, 'An Act to amend the Laws relating to Labour in Factories.'"

It will be seen that the only restriction to which the establishments affected by the Act are subjected, is the prevention of nightwork of females of all ages, and of males under eighteen years of age. As far as my experience has gone, I do not think the regulations as to registration of names and surgical examination to be indispensable for the due administration of the law in the establishments visited, the persons employed being chiefly adult men and adult women. From the returns collected at the several bleaching fields, it appears that 50 per cent. of the persons employed were men,

and only 2 per cent. children under 13 years of age. The actual numbers employed were as follows:—

Adult men.	Adult females.	Young persons between 13 and 18.	Children. under 13.
1132	874	211	49

As soon after the first of January as arrangements could be made, the several establishments were visited, some by myself and the remainder by the sub-inspectors. We found the notice in nearly every instance hung up as requested by me, and the occupiers were prepared to conform to the requirements of the Act. We were assured by them that the regulations were in their opinion salutary, and they expressed their satisfaction that the whole of the bleaching establishments had been placed under regulations. Many of these gentlemen had for some time past been of opinion that the period was not far distant when their premises would be brought under legislative restrictions, and they had been gradually making such arrangements as would enable them to meet that time when it came. Some of these arrangements are most advantageous to the hands employed, and are as satisfactory to the occupiers. In some parts of Scotland this trade was carried on by a system of overtime, *i.e.*, ten hours a day were the regular hours of work, for which a nominal wage of 1*s.* 2*d.* per day was paid to a man, there being every day overtime for three or four hours, paid at the rate of 3*d.* per hour. The effect of this system by which a man could not earn more than 8*s.* per week when working the ordinary hours, was to cause the hands to idle during the day, in order to accumulate work and thus ensure overtime, without which they could not earn a fair day's wages. But in anticipation of the restrictions, the system of overtime was abolished, and that of piece work introduced; a fair price is paid for a day's labour, and it is now to the interest of the operatives to do their work efficiently and expeditiously. The abolition of nightwork is a great boon absolutely effected by the Act, but the indirect abolition of the system of overtime, and the substitution of piece work, is most advantageous both to the masters and the operatives; to the latter especially, for they receive wages in proportion to the work done, calculated upon a fair estimate of the value of the work, and they are enabled to earn a livelihood within the ordinary hours of the day, viz., from 6 a.m. to 6 p.m. I am happy to say that the masters are fully sensible of the advantages of working under the new system, and there did not appear in a single instance any fear of the restrictions as injurious to the trade.

In administering the provisions of the Bleach and Dye Works Act I have not found any circumstances requiring special remark. There is a general spirit of fairness and a

desire to co-operate with the sub-inspectors and myself in carrying out the provisions of this Act.

There has been a gradual increase of employment throughout my district since the commencement of the year; not, however, so much in the resumption of work in mills which were altogether closed, as in the return to full time in many mills, and to longer time in others. In Glasgow employment is so much better that two of the sewing schools have been closed, and the third has weekly a diminished attendance, and it will probably be closed altogether at an early date. In Blackburn the prospects have been brighter of late, and the sewing schools there will probably be reduced in number. This state of things, however, was naturally to be expected. As cotton came into the country, and as stocks of goods diminished, some increase of employment upon the stagnation of the latter part of last year was an almost inevitable result. But it is most important, when considering this question of increase of employment, to keep in view two points; viz., the quantity of raw cotton required to keep the mills in full work, and the quantity to be received during the present year. The quantity of cotton required to keep all the mills upon full work for a year is about 2,500,000 bales; the quantity likely to come into the country this year will not exceed one half of that amount, provided none be received from America. About the same quantity of cotton was received in 1862, giving about half employment to the mills. Looking, therefore, at the raw material within reach of the manufacturers, we cannot expect, unless the whole supply were recklessly worked up at once, any great addition to the active employment of cotton operatives in the mills. Although at one time a cessation of war was looked upon as an immediate forerunner of the resumption of work in Lancashire, things are now much altered since 1861. So much uncertainty exists as to how far the cotton which was known to be in stock has been reduced since 1861, and there appears so much probability that the cultivation of cotton has ceased during the war, that no reliance can be placed upon any estimates of what may be expected from America, *immediately* on the declaration of peace, and *annually* afterwards. This uncertainty is of such a nature that I have been frequently assured that as soon as peace should be settled, a large number of mills would be closed altogether until prices should have found a proper level. Whenever, therefore, the differences between the Northern and Southern States shall be arranged, it appears that manufacturers will still have to look to other countries for a sufficient and for a regular supply of raw cotton. But supposing the American war to continue for two or three years longer, the prospect of our obtaining a sufficient supply of cotton is much lessened. Increased supplies will undoubtedly arrive from various coun-

tries, and year by year the ratio of increase will be greater, and, as regards Surat cotton especially, the material will be better prepared for this market. We can in this event look forward only to a gradual diminution of the existing want of mill employment for the cotton operatives.

It cannot be said, therefore, that the crisis has been overcome. There is much to be provided for against another winter. It is true that the experience of the past may lessen some of the difficulties which beset boards of guardians and relief committees last year; but to counterbalance this, it will be found that the operatives will be less prepared to meet the want of regular employment than they were after a season of unexampled prosperity and high wages, having now neither savings nor surplus property to fall back upon before applying for relief.

The main supply of cotton now used is Surat cotton, and it is likely to be the main supply, for the reasons above stated, for some time to come. The principal use to which Surat cotton was put, before the commencement of the American war, was as a mixture with other cottons. It was generally mixed with American cotton, and when mixed in proper proportions the two cottons could be manufactured without difficulty, or requiring any special adaptation of the machinery. But now Surat cotton is mixed with almost every variety of cotton; in fact, manufacturers have been obliged to change the nature of the raw material they have hitherto employed. Those who used only Sea Island cotton—an American cotton having the largest and finest staple—now use Egyptian, Brazilian, &c.; those who formerly used Egyptian are now obliged to mix Surat with the Egyptian; and so on, lower down in the scale, until Surat cotton must be used alone. The objections to Surat cotton are the dirty state in which it is sold, and the shortness of the staple or fibre. The first objection may be overcome, but the second objection is inherent to the cotton itself; and herein lies the difficulty of the manufacturer. Those who spin fine yarns have much greater obstacles to overcome than those who spin coarse numbers; and hence many different opinions, all equally correct, will be given upon it. Manufacturers who were in the habit of using the coarse kinds of American can readily substitute Surat; but manufacturers who spin or weave finer numbers than 32's find considerable difficulties in their way of producing, with a mixture of Surat cotton, yarn and goods equal to what they had been accustomed to manufacture.

The difficulty of working Surat cotton is not confined to the cleaning, preparing, and spinning the yarn; it extends also to the weaving of the fabric. I have been assured that the elasticity of the yarn is greatly affected by the temperature, and that many expedients have to be resorted to in

order to produce, in our changeable climate, an atmosphere in the weaving mills which will counteract the tendency of the thread to snap, and consequently it requires increased attention to produce good cloth as well as good yarn. But a very serious objection to the use of Surat cotton, as manufacturers are now compelled to use it, is that the speed of the machinery must be greatly reduced in the processes of manufacture. For some years past every effort has been made to increase the speed of machinery, in order to make the same machinery produce more work; and the reduction of the speed becomes therefore a question which affects the operative as well as the manufacturer; for the chief part of the operatives are paid by the work done; for instance, spinners are paid per lb. for the yarn spun, weavers per piece for the number of pieces woven; and even with the other classes of operatives paid by the week there would be a diminution of wages in consideration of the less amount of goods produced. From inquiries I have made, and statements placed in my hands, of the earnings of cotton operatives during the present year, I find there is a diminution averaging 20 per cent. upon their former earnings, in some instances the diminution has been as much as 50 per cent., calculated upon the same rate of wages as prevailed in 1861.

As this cotton becomes better understood, means will doubtless be found for increasing the speed of the machinery or otherwise altering the processes, so as to make the produce of the machinery on a par with former results; but in the meantime, having regard to the price of the raw material and the prices of the manufactured goods, it is more than probable that the present amount of earnings will not be much augmented beyond the present average.

It will be remembered that the disruption between the Northern and Southern States occurred at a period when the cotton manufacture was most prosperous in this country. In this state of prosperity manufacturers were investing capital largely in increasing their establishments, and the co-operative principle was becoming largely introduced into the cotton manufacturing trade. In 1860 and in 1861 many new mills were commenced; for instance, in the neighbourhood of Oldham 20 new mills have been opened, containing upwards of 400,000 spindles, while nine are in course of erection, intended for upwards of 250,000 spindles; and in Ashton-under-Lyne there are 13 mills in course of erection, calculated to contain 330,000 spindles; and in other parts of my district mills have been in course of erection, and occasionally new mills have been opened. It is evident, therefore, that those who should best understand this matter do not despair of the future prospects of the cotton trade. But it would probably be found that these mills were projected, as many of them were built, at a time when the American war was not expected to last many months; and with reference to the

large number of new establishments in Oldham and its neighbourhood, I would remark, that the coarser class of cotton and cotton waste are the chief materials used in that town,—materials which find a good substitute in Surat cotton; and in such localities, as also in Blackburn, Bacup, and other neighbourhoods in which the coarser and moderately coarse goods are manufactured, there will be a greater extension of mills and machinery than in Manchester, Ashton, Preston, and their neighbourhoods, where a finer class of goods are manufactured for which Surat cotton is not suitable.

I would therefore state the following conclusions, which should be borne in mind in considering the prospects of the cotton districts for some time to come:—

The quantity of raw cotton coming into the country during the present year will not exceed half the quantity required to keep the mills in full work,—

The quantity to be received hereafter will be a gradually increasing quantity, but not for some time sufficient to employ all the mills for full time,—

The working of Surat cotton, which will be the main supply, will not realize to the operatives their former amount of wages, by a diminution averaging 20 per cent. at the present time,—

During the present year there will not be full employment for much more than one half of the cotton operatives in the country; or, to put the result in another form, the cotton operatives will not be employed upon the average for much more than half time, at a diminished rate of earnings,—

Until a sufficient and regular supply of cotton can be relied upon, a large number of persons must be provided for, either by emigration, or by employment being found for them in other occupations, or by their relief from local institutions or private benevolence.

In my last report I had the pleasure of laying before you a very excellent communication made to me by Mr. Henderson, the resident Sub-Inspector at Blackburn, upon the condition of that town, and explanatory of the steps taken by the Relief Committee to meet the sudden emergency there caused by the stoppage of the mills. I have received from Mr. Oram, the Sub-Inspector resident at Dukinfield, a report of the state of his district, comprising the towns of Ashton-under-Lyne, Stalybridge, Mossley, Glossop, Oldham, Lees, Royton, &c. for the months of January, February, March, and April last. There are many points in this report worthy of consideration, and there is much valuable information contained in it, which, from the care taken in compiling it, is to be relied upon. The report is dated the 19th instant:—

Having completed the return of the number of operatives employed in the borough of Oldham, the borough of Stalybridge, the borough of Ashton-under-Lyne, and the township of Dukin-

field, and collected information relative to the question of out-door labour and other subjects in connection with those places, I beg to forward the same for your information and use :—

BOROUGH OF OLDHAM.

Cotton operatives employed in 1861.

Males - - - - -	8,641
Females - - - - -	10,357
Total - - -	18,998
Men above 18 - - -	5,943
Young men between 13 and 18 -	1,644
Boys between 8 and 13 - -	1,054
	8,641
Women and girls above 13 - -	9,825
Girls between 8 and 13 - -	532
	10,357

Employment of cotton operatives as per Chief Constable's returns.

1863.	Working full time.	Working short time.	Total employed.
January 22	5,270	9,085	14,355
April 16 -	7,930	5,048	12,978

Cotton operatives and others employed in sewing and educational classes.

1863.	Men.	Boys under 15.	Women and girls.	Children at school.	Total.
January	898	2,215	878	—	3,991
April	601	300	572	1,111	2,584

As per relief committee's returns.

Number of cotton operatives and others relieved by committee.

1863.	Also receiving relief from guardians.	Not in receipt of parochial relief.	Total.
January	2,337	7,093	9,430
April	1,928	6,707	8,635

As per relief committee's returns.

Cases relieved by committee for week ending 4th April, showing sources of income :—

Number of Persons relieved.	Income from work.	Income from clubs.	Income from guardians.	Relief fund.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
8,660	236 2 5	3 9 10	108 6 6	659 3 7	1,007 2 4½

Being an average of 2*s.* 3*d.* per head.

Scale of allowance.

If in lodgings.		If householders.	
1	3*s.*	2	6*s.*
2	5*s.*	3	8*s.*
3	7*s.*	4	10*s.*
4	9*s.*	5	11*s.*
5	10*s.*	6	13*s.*

And 2*s.* per head if above this number.

All persons in receipt of relief between the ages of 15 and 35, whether male or female, are required to attend the adult schools, and absence without satisfactory reason leads to a reduction of 3*d.* per half day. Those above the age of 35 are allowed the privilege of attending if they desire it. Refusal to attend school when required by the ward committee is regarded as a withdrawal from the relief fund, and in cases of insubordination, on being twice reported, the party is expelled and deprived of all relief.

Any person selling or pawning the clothing which has been distributed, is excluded from the relief fund, as are also any who may be convicted of drunkenness.

In order to provide against fever and infectious diseases, the recipients of relief are required to limewash their houses, brushes and lime being provided by the committee.

The Board of Guardians having adopted a resolution to the effect that "they are disposed to pay the prices usually paid at the several schools in the union for all children above the age of 4 and up to 16, whose parents are in receipt of out door relief," in order to make provision for those children not embraced in that arrangement, the relief committee authorized and required parents making application for relief to them, to send their children to any schoolmaster the parents might choose, the schoolmaster receiving 3*d.* per week each for such children, which payment is now reduced to 2*d.*

It is to be regretted that in consequence of the demand for clothing, no education has been carried on in the sewing classes in Oldham, but the committee are making arrangements to introduce it immediately.

In common with other relief committees in this district, they have considered it inexpedient to entertain the question of emigration.

No out-door work had been attempted by the relief committees of Oldham, Ashton-under-Lyne, Stalybridge, or Dukinfield up to the end of April, although all have felt the advantages which would arise from a well organised system of manual labour.

Insuperable difficulties, however, have come in the way; but, as an experimental measure, in Oldham, it is intended to employ able-bodied men above the age of 35 in drainage works at the cemetery at 3*d.* per hour; others are to be employed in the removal of mounds of earth at the same rate of payment, in both

cases for such time only as will make up the amount of relief received.

The formation of a public park in Sheepwashes valley is under consideration by the town council, and the following resolution has been passed :—

"That the members of the general purposes committee and the surveyor's committee be a special committee to consider and report upon the expediency of adopting so much of the Public Health Act, 1848, and the Local Government Act, 1858, as relates to public pleasure grounds and the laying out of other public works; and also to report as to a suitable site for the pleasure ground, and the probable cost of providing, laying out, and maintaining the same."

I have been favoured with the following list of clothing distributed by the clothing committee, who have now discontinued their operations except in special cases :—

Blankets, 3,235 ; sheets, 2,835 ; petticoats, 4,774 ; counterpanes, 2,683 ; chemises, 6,384 ; shirts, 5,277 ; flannels, 1,988 ; flannel shirts, 3,169 ; Stockings, 14,817 ; skirts (women's), 103 ; dresses, 799 ; mens' trowsers, vests, and coats, 3,382 ; boys' trowsers, jackets, vests, &c., 1,215 ; shawls, 185 ; new clogs, 6,000 ; repaired clogs, 5,702 ; working pinafores, 1,507.

In addition to the cotton factories, there are 28 foundries, machine shops, collieries, &c. in the borough of Oldham, employing 6,856 hands, who are added to the cotton operatives in the public relief returns.

BOROUGH OF ASHTON-UNDER-LYNE.

Cotton operatives employed in 1861.

Males - - - -	4,957
Females - - - -	5,899
Total - - -	10,856
Men above 18 - - -	3,524
Young men between 13 and 18 -	847
Boys between 8 and 13 - -	586
	4,957
Women and girls above 13 - -	5,707
Girls under between 8 and 13 -	192
	5,899

Employment of cotton operatives as per Chief Constable's returns.

1863.	Working full time.	Working short time.	Total employed.
January 24	1,825	2,589	4,414
April 25	1,774	2,258	4,032

Cotton operatives and others employed under the Relief Committee in sewing and educational classes.

	Men.	Women and girls.	Boys. under 15.	Children at school.	Total.
January	1,937	1,941	277	—	4,155
April	1,435	2,348	290	4,036	8,109

As per Manchester Central Relief Committee's return.

Number of cotton operatives and others relieved by the Relief Committee :—

	Also receiving relief from guardians.	Not in receipt of parochial relief.	Total.
January	12,232	4,522	16,754
April	9,025	4,487	13,512

As per Manchester Central Relief Committee's return.

The Relief Committee had not employed the men in out door labour up to the 30th of April, but have now made arrangements with Lord Stamford for the completion of a new road, and with the borough contractor for the removal of a mound of earth, the men receiving 3*d.* per hour and a trifle from Lord Stamford and the contractor daily to obtain refreshment, the hours of labour to be such as shall make up the three shillings per week they would otherwise receive at the school.

The town council have under consideration the propriety of applying for a Government loan to enable them to make a public park, for which they have an endowment of from 320*l.* to 350*l.* per annum, which is paid to other towns until their park is formed ; further to enable them to improve the waterworks, and also to enable them to form a main arterial drain in the town.

The town council passed the following resolution :—

" That it is very desirable to provide manual labour at ordinary wages for the unemployed cotton workmen, and to lessen if possible the heavy local taxation which now presses seriously on owners of cottages, shopkeepers and others ; and that in the deliberate opinion of this council it is the duty of parliament to furnish loans of money repayable with interest by annual instalments within 35 years, to corporate bodies to enable them to undertake works of public utility, and thereby to mitigate the distress which now exists in the cotton districts."

One of the most active members of the Executive of the Manchester Central Relief Committee drew the attention of the town council on the occasion of the above motion, on the 14th of May, to the fact that there were 750 more unemployed cotton operatives in Ashton-under-Lyne borough than they had 5 weeks ago ; and when they bore in mind that those 750 represented at least 1,500 persons, they would have an idea that the distress instead of being stationary or retrograding was most seriously on the increase in this borough.

He referred to the fact that there was no manufacturing town in the county so exclusively an American-cotton consuming town as Ashton-under-Lyne, arising from the very nature of its manu-

facture, and in addition Ashton stood alone in being almost entirely dependent on the cotton trade, Bury, Rochdale, Oldham, &c. having very extensive manufactories of another description.

After very careful consideration of the subject, he had come to the conclusion that the next winter would be a time of equal suffering to the winter through which they had recently passed.

The scale of relief adopted by the Borough Relief Committee is as under,—

	s.	*d.*
1 person	3	0
2 „	6	0
3 „	7	6
4 „	9	0

and 1*s.* 6*d.* per head if above this number. Children under 13 1*s.* 6*d.*

In the sewing and educational classes for adults, the men, women, and girls above the age of 15 are paid 3*s.* per week, girls between 13 and 15, 2*s.* per week, and boys between 13 and 15, 1*s.* 8*d.* per week.

The school fees of those under 13 are paid at the rate of 2*d.* per head.

Some months since the mayor issued a notice requiring the recipients of relief to limewash their dwellings, and it is intended again to issue a similar notice, brushes and lime being provided by the Committee.

The Borough Relief Committee, who have now discontinued the distribution of clothing, distributed between the 6th of December and 13th May, as under :—

4,104 blankets, 4,680 chemises, 4,030 flannels, 4,649 new clogs, 3,941 stockings, 4,190 shirts, 2,411 repaired clogs, 431 beds, 249 quilts, 308 bolsters, 7,838 petticoats, 60 shoes, 337 dresses, 426 frocks, 477 coats, 544 new suits, 620 trowsers, 461 vests, 180 bonnets, 44 caps, 42 shawls, 13 sundries—in all 40,035 articles.

In addition to cotton factories, there are 14 machinists, hatters, collieries, bobbin turners, and a silk mill, in the borough, employing upwards of 1,150 hands.

BOROUGH OF STALYBRIDGE.

Cotton operatives employed in 1861.

Males	4,586
Females	5,818
Total	10,404
Men above 18	2,984
Young men between 13 and 18	985
Boys between 8 and 13	617
	4,586

Women and girls above 13 - -	5,460
Girls between 8 and 13 - -	358
	5,818

Employment of cotton operatives as per Chief Constable's returns.

	Working full time.	Working short time.	Total.
January 10	2,267	3,086	5,353
May 9 -	1,893	2,726	4,619

Cotton operatives *and others* employed under the Relief Committee in sewing and educational classes.

	Men.	Boys under 15.	Women and girls.	Children at school.	Total.
January	1,956	2,421	1,757	—	6,134
April	1,501	—	1,549	2,557	5,607

As per returns of Relief Committee.

Number of cotton operatives and others relieved by the Relief Committee.

	Also receiving relief from Guardians.	Not in receipt of parochial relief.	Total.
January	10,120	3,947	14,067
April	6,965	3,215	10,180

The return for one week will show the various sources of income.

—	Cases.	Persons.	Wages.	Sewing Class.	Parish.	School.	Relief Fund.
			£ s. d.	£ s.	£ s.	£ s.	£ s. d.
Not relieved by Guardians -	683	2,504	125 16 3	27 15	—	31 19	94 13 0
Relieved by Guardians also	1,710	6,545	71 18 7	58 16	299 12	112 19	252 13 6
	2,393	9,049	197 14 10	86 11	299 12	144 18	347 6 6

The maximum scale of relief is such a sum as will make up the income from all sources to the following amounts weekly :—

	s.	d.
A single man or woman neither working or attending school - - - -	2	6
A man attending school - - -	3	0
A woman above 14 attending school -	3	0

	s.	d.		s.	d.
A person in a family not working	3	0	If all working	3	6
2 persons " "	6	0	" "	7	0
3 " " "	8	6	" "	9	6
4 " " "	11	0	" "	12	0
5 " " "	13	6	" "	14	6
6 " " "	16	0	" "	17	0

Persons of any age under 14 years 2*s.* each.

"This scale is calculated irrespective of rent."

Example of five persons in a family, three being over 14, not working, and two under 14, their total income must be 12*s.* 6*d.*, thus :—

	s.	*d.*
1 man in school - - -	3	0
1 girl „ - - - -	3	0
Parish allowance (suppose) - -	2	0
Relief allowance - - -	4	6
	12	6

The allowances granted, however, are generally below the above scale.

The committee in their monthly report intimate that they have had under consideration, from time to time, the best method of organizing some scheme which would prove of public utility and improvement, by which some portion of the able-bodied recipients of relief could be found out-door employment; but the peculiarity of the district, combined with the difficulties which necessarily arise in making satisfactory arrangements of detail have hitherto prevented them bringing any scheme to a conclusion, but they express their satisfaction that the labour question for the remunerative employment of the cotton operatives is now engaging the attention of the Poor Law Board, so that there are some signs of the question being renewed.

There are 27 foundries, bobbin turners, machinists, &c., in the borough, employing 1,110 hands, who suffer more or less from the cotton panic.

TOWNSHIP OF DUKINFIELD.

Cotton operatives employed in 1861.

Males - - - - -	1,809
Females. - - - - -	2,771
	4,580
Men above 18 - -	1,353
Young men between 13 and 18 -	320
Boys between 8 and 13 - -	136
	1,809
Women and girls above 13 - -	2,703
Girls between 8 and 13 - -	68
	2,771

Employment of cotton operatives as per Chief Constable's returns.

	Working full time.	Working short time.	Total.
January	869	1,520	2,389
April	742	1,502	2,244

Cotton operatives and others employed under the Relief Committee in sewing and educational classes.

	Men.	Boys under 15.	Women and girls.	Children at School.	Total.
January	911	669	1,650	—	3,230
April	930	—	1,110	1,503	3,543

As per Relief Committee's return.

Number of cotton operatives and others relieved by Relief Committee.

	Also receiving relief from Guardians.	Not in receipt of parochial relief.	Total.
January	3,785	5,022	8,807
April	3,377	5,139	8,516

No out-door work has been attempted as yet in Dukinfield.

Under the Police Act for Stalybridge, half the original township of Dukinfield was included, and in consideration of the value of the rateable property, Stalybridge was to keep the main street in Dukinfield proper from the Stalybridge boundary to "the Albion" in repair. The Borough of Stalybridge contend that they have only to pave, flag, and cleanse, and not to make sewers; whilst the Dukinfield Board of Health consider that Stalybridge should attend to the sewerage.

The result is that there is no sewer in that street, and consequently not in the cross streets adjoining. The sewers in Astley Street and King Street, which are the other principal thoroughfares, are very inefficient, and require alterations. There are a great many cess-pits, and on account of the state of the sewerage, waterclosets are rarities in the neighbourhood.

Out-door labour might also be found in connection with a new market. The land (12,383 square yards) *has been purchased*, but nothing done in levelling and preparing it. This would be suitable work, and employ many of the cotton operatives.

I may observe that no place in the county is better adapted or a good system of drainage than Dukinfield.

General Remarks.

I would draw your attention to the fact of the number of boys employed as half-timers, in comparison with girls, which will explain the backward state of education, as evidenced by the sewing classes.

One of the leading millowners stated to me that the state of education in the sewing classes tended to prove the inefficiency of the half-time system, so I decided on enquiring into several cases, and if I found they had attended any schools in the district request the masters for an explanation.

The result of my enquiries proved, however, that the girls had been engaged in nursing and domestic duties, until they passed as full-times, and, generally speaking, had never attended any day or evening school.

The following cases will serve as examples :—

M. A. M., aged 16. Never attended a day school, but was employed in nursing until I entered the mill about three years since.

J. K., aged 15. Attended a day school for about six weeks.

E. R., aged 15. Never attended school, with the exception of three weeks at an evening school.

H. P., aged 16. Never attended school.

E. S., aged 16. Only attended a very short time at an evening school.

M. M., aged 18. Never attended school.

A. L., aged 16. Employed a few months half time, but never attended school since.

E. T., 39. Never at school.

M. S., aged 16. Attended school for less than 12 months before I was 10 years old, and was afterwards employed nursing.

A. J., 25. Never at school.

In these towns care has been taken that the half-timers out of employ should be kept off the streets, and attend school ; consequently the average attendance at the National and British schools has increased, the recommendation of Lord Derby and the Manchester Central Relief Committee having been adopted, and the school-pence for the children of persons in the receipt of relief paid by the various district committees.

Emigration appears to be going on quietly and steadily in the district. It is very difficult to obtain anything like correct returns on the subject ; especially as free tickets from emigrants are forwarded from America and New Zealand to their friends here, which renders the aid of a local emigration agent unnecessary.

From the returns with which I have been favoured, however, it appears that above 1,700 persons left the neighbourhood of Ashton-under-Lyne in 1862 for America, Queensland, and British Columbia, and that between the 1st of January and the 25th of April 1863, above 878 persons have left the same neighbourhood for the United States, Canada, Australia, and New Zealand.

The most flattering accounts are forwarded from America to induce the operatives to proceed there.

With reference to the public returns which have been printed, I would observe that if the cotton mills had even worked less the last month or two than at any former period, the returns from the relief committees would have been more favorable than in the preceding months, inasmuch as colliers, machinists, out-door laborers and others were at first relieved out of the funds, which are now confined in many places almost exclusively to the relief of cotton operatives.

In reference to the computation for loss of wages in the public returns, I find on inquiry that it has not been reckoned at any general rate, but one town has taken 10*s.* per head, another 12*s.* and a third 12*s.* 6*d.*

A leading millowner who has worked full time on good cotton, has obliged me with an exact return of wages paid in his mill,

including every hand employed by him, and the result is 16*s.* per head, but this is certainly much above the average, whilst 10*s.*, which is a too common computation, is below, although it might have been a fair average some years since.

In adverting in my last report to the educational provisions of the Factory Act, and in pointing out the chief cause of the non-employment of half-time children in Scotland, I advocated as a measure well adapted to promote the instruction of children under 13 years of age, that the employment of these children for 10 hours per day on alternate days, combined with attendance at school on alternate days, as sanctioned by the 31st section of 7 Vict., should be extended, so as to legalize the alternate day system of employment during the present working day of 10 hours and a half. The principle which I advocated was to facilitate the school attendance of children employed in factories, &c., and to offer inducements for the employment of school children in districts, which, for the reasons stated in my Report, difficulties existed in their employment upon the half-day system. That the alternate day system of employing children is, under the circumstances referred to in my last Report, a valuable adaptation of the plan of combining employment and instruction, is proved by its having been in practice from 1848 to 1850, when it could be legally adopted without alteration in the hours of work of the other class of operatives in the factory, and by its having been approved by schoolmasters and school managers. My late colleagues, Mr. Horner and Mr. Saunders, whose districts, with a small exception, are now under my inspection, had a very extensive knowledge of the administration of the Factory Acts from the commencement of the system in 1833; and their opinions upon the working of any part of the Factory Acts carry great weight, from their known sympathy with all that tended to ameliorate the condition of the operatives, and to raise them in the social scale. They had watched the working of the alternate day system, and reported very favourably of it as especially adapted for country districts where the mills are scattered.

Mr. Saunders describes in his Report for the 30th April 1850, at p. 43, how well the alternate day system answered in his district. Referring to Yorkshire, he says:—

"The employment of children on alternate days under the 31st section of 7 Vict. c. 15. instead of for half of each day, has been adopted in various places, since the hours of labour for "young persons" were reduced to the same number in each day as those which the existing law allows children to be employed on alternate days. The reduction in the labour of young persons to 10 hours afforded mill occupiers encouragement to practise this plan, because it did not involve any loss in the labour of these classes,

and it has been found to work satisfactorily. This system will not, it is to be feared, be so generally practised after the Bill now before Parliament becomes law, because it will then be lawful to employ young persons 10½ hours on five days, while children cannot be employed, on the alternate system, more than 10 hours in any one day.

"The greatest advantages have been derived from the alternate day system in woollen mills wherever situated, and in mills of all descriptions in rural districts. In woollen mills the oils and dyes used make an entire change of dress indispensable, wherever children go from work to school, or vice versâ, in the middle of the day; whereas by employment and school attendance during the whole of each alternate day, a change of dress during the dinner hour, such as the other system involves, is avoided. In mills situated in rural districts, children have often considerable distances to travel between their homes and their places of work. In such situations the half-day system subjects children to great inconvenience, especially when, as it frequently happens, the factory and the school are situated in opposite directions from their residence. The alternate day system corrects this evil to a material extent; and moreover enables each child to attend the best school in the district of its residence, instead of being forced to go to a school in another district, simply on account of its contiguity to the factory."

Mr. Horner in his report of the same date, p. 50, states that:—

"The alternate day system is found in many cases to act satisfactorily and is much approved of by factors and managers of such schools. These will regret to find that from the want of a special provision for the purpose, this system will probably not be so extensively practised, when the new factory bill comes into operation, as it has been latterly."

Again in his report for 31 Oct. 1850, Mr. Horner, expresses his opinion very strongly of the advantages of the alternate day system:—

"The other objection to the Act of last session to which I have adverted, is its interference with the employment of children on alternate days. By s. 31 of the Act of 1844, 17 Vict. c. 15, it is enacted that "in any factory in which the labours of young persons is restricted to ten hours in any one day, it shall be lawful to employ any child ten hours in any one day, on three alternate days every week.' Many millowners, particularly after the passing of the ten hours Act, availed themselves of this permission, the children going to school both forenoon and afternoon; on these days they did not work, and by changing his working days every week, each child got five entire days of schooling every fortnight. When the last Act passed, extending the hours of work to 10½ hours, most of the millowners who employed the children on alternate days continued to do so, extending their time also from 10 to 10½, not imagining that they

were doing anything that the law did not allow, from not adverting to the words of the 31st section of the Act of 1844, and to that system having been left unaltered in the Act of last session. The inspectors, who must of course enforce the law as it exists, had no alternative but to require that in these mills either the young persons and women must be restricted to ten hours per day, or the children cease to work on alternate days. It was with great regret that I felt myself compelled to interfere in this way, because I was aware that I was not only putting a stop to a system that was convenient to the millowner, but most advantageous to the children. The advantages to them are very great. They are enabled to go clean to school ; when they work half-time each day, they go in their working dresses, very often so dirty and smeared with dye and grease, that they are not only placed in disadvantageous contrast with the other children, but are refused admission to many schools on that account, and thus are obliged to go to schools of an inferior kind. They can also keep more exact to the school hours, which the morning set of workers are frequently unable to do and get their dinner with any comfort

It is much to be regretted that millowners wishing to adopt a system so manifestly beneficial to the children should be prevented from doing so by the unamended 31st section of the Act of 1844, without sacrificing the advantages as to time which the Act of last session conferred upon them.

Mr. Saunders was no less satisfied that the system should have been continued, as will be seen by the following extract from his report, 31 Oct. 1860:—

" The Act of 1844 made the employment of children for the whole of each alternate day, and their attendance at school the whole of each intervening day, permissive in factories in which the " labour of young persons is restricted to 10 hours in any " one day." So long as young persons could be employed for 11 or 12 hours this clause continued inoperative, but from the period when it became illegal to employ any of this class more than 10 hours the alternate day system was introduced, and found very advantageous in many respects, more especially in mills scattered over rural districts. In those places the system led to a more regular attendance of children both at their work and at their school ; and it afforded to teachers great facility for the enforcement of cleanliness and good order. The Act of 1850 has unhappily induced mill occupiers to revert to the former system, by encouraging the employment of young persons ten hours and a half, for five days of the week, without making any provision for extending to such cases the operation of the alternate day clause in the Act of 1844. This has caused much dissatisfaction and complaint : but the construction of the 31st section of the Act of 1844 has rendered it impossible for me to sanction any other course."

Mr. Horner, in a later Report, 31 Oct. 1853, again expresses his regret that children could not be employed on alternate

days for the same number of hours as young persons, viz., ten and a half hours.

Such are the opinions of the two inspectors whose expeperience covered the largest area, and extended to the commencement of factory inspection. They did not look upon the addition to the labour of children of one half-hour on alternate days as likely to be injurious to the young; indeed their whole official lives had been passed in endeavouring to secure to the children the greatest amount of instruction with the least pressure upon their physical condition, and they supported the alternate day system of employment as a measure eminently calculated to advance the interests of the children. Although it might appear at first that the addition of half an hour on alternate days would have been an absolute addition to the labour of children, in point of fact the actual time of labour would have been precisely the same as that under the half-day system. But, in addition to their judgment and their views upon this subject, I speak from my own knowledge and experience of the value of the alternate day system. An experience of nearly 20 years in the administration of the Factory Acts,—an experience not confined to one locality or one county, but extending to the principal part of England and to the whole of Scotland,—enables me to look back to the period when the alternate day system was legal and in operation, viz., from 1848 to 1850, and to corroborate their opinions, and to state that it would still be of value to children in many parts of England if its legality had been continued to the present time.

In Scotland, as I stated in my last Report, school children are rarely employed, except in mills in which schools are established purposely for the factory hands, the hours of the public schools and the arrangement of the meal hours in Scotland rendering it almost impossible to employ children upon the half-time system as in England, where the children ordinarily attend some of the public schools in the neighbourhood.* The alternate day system would consequently

* Even when a school is established by the manufacturer for his half-timers, the arrangement of the school hours so as to give each child three hours' schooling, and so as not to clash with the meal hours, is attended with many inconveniences. I found the following plan in operation at an excellent mill in Scotland, the proprietors of which yield to none in their anxiety for the welfare of their hands.

	Attendance at School.
Morning set:	
8 A.M. to 9 A.M.	1 hour
10 30 A.M. to 12 30 P.M.	2 hours
	3 hours
Afternoon set:	
12 30 P.M. to 2 P.M.	1·30 hours
2 45 P.M. to 4 15 P.M.	1·30 „
	3· hours

The

be a boon to children in Scotland. It was commenced some years ago, but in consequence of its illegality it was abandoned. A gentleman of great intelligence and experience of the working of the Factory Acts, who is most desirous of promoting the employment of school children in Scotland, writing to me upon this subject says:—"The number of young "persons who are employed in factories who can neither "read nor write is truly lamentable, and calls loudly for "some means being taken for an improvement;" and expressing his views in supporting the legalization of the alternate day system in Scotland, he says it is "for the benefit "of the children, by insuring to a far greater number of "them than at present at least a slight knowledge of the "ordinary branches of education:" but he had recommended a very important modification of the system—a modification which I am happy to find had the approval of many millowners, and which affords conclusive evidence that the alternate day system was desired in Scotland as a measure for the benefit of the children. He says: "I consider it would "have been an improvement to restrict the ages at which "children should be employed on the alternate day system "from 10 to 13 years, instead of from 8 to 13, as under the "half-day system, and all the millowners in this district "(Dundee), to whom I spoke on the subject (and I have "conversed with a great many) were of the same opinion."

I have a letter now before me from the secretary of a very active Operatives Short-time Committee in Glasgow, in which he says, "I am persuaded the change proposed would "have had a salutary effect when brought into operation."

I venture to think that the opinions expressed by persons conversant with the circumstances of the factory population of Scotland, and the arrangement of school hours and of the meal times in that country, must have considerable weight in showing that the alternate day system would have mitigated some of the difficulties in the way of employing school

---

The breakfast hour being from 9 A.M. to 9·45 A.M., and the dinner hour from 2 P.M. to 2·45 P.M., it will be seen that each set had a broken attendance at school.

At another mill I found the following arrangement of school hours:—

Morning set:	
9·30 A.M. to 12 - - -	2½ hours
Afternoon set:	
12·15 P.M. to 2 P.M. - - -	1¾ hour
2·30 P.M. to 4·15 P.M. - - -	1¾ „
	3½ hours

A re-arrangement of the hours will become necessary here; for although the *average* attendance of each set is 3 hours per day, the morning set only attended 2·30 hours per day.

children in Scotland, which, as has been shown, it is almost impossible to remove under the present system.

I have the honour to be,
Sir,
Your very obedient humble servant,
ALEX[R] REDGRAVE.

To the Right Hon.
Sir George Grey, Bart., M.P., G.C.B.,
&c. &c &c.

Appendix No. 1.

Return of Prosecutions for Offences against the Factories Regulation Acts in the District of Alexander Redgrave, Esq., during the Six Months ended the 30th April 1863.

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	Remarks.
			In the Sub-Inspectorship of Mr. Trimmer.	£ s. d.	£ s. d.	
1862. Nov. 15	Alan Rayner and Co., Rastrick.	John Waterhouse, William Henry Rawson, John Lister, Esqs.; Halifax Petty Sessions.	Having employed a young person during the night.	2 0 0	0 12 6	
1863. Feb. 24	Stanley Cooper, Halifax.	George Buxton Brown, William Appleyard, Esqs.; Halifax Borough Court.	Not having entered in Register the name and date of the first day of employment of a young person.	2 0 0	0 12 0	
,,	,, ,,	,, ,,	For a like offence - - - - - -	2 0 0	0 12 0	
,,	,, ,,	,, ,,	For a like offence - - - - - -	- -	0 0 6	Dismissed.
Feb. 28	Brawell Dawson, Brighouse.	John Waterhouse, William Appleyard, Esqs.; Halifax Petty Sessions.	Not having entered in the Register the name and the date of the first day of employment of a young person.	2 0 0		
	,, ,,	,, ,,	For having wilfully obstructed the Sub-Inspector by attempting to conceal two young persons.	5 0 0	—	
,,	,, ,,	,,	For having employed a young person after 6 o'clock in the evening.	0 5 0	2 5 6	
,,	,, ,,	,, ,,	For having employed one of his own children after 6 o'clock in the evening.	0 5 0	—	
,,	,, ,,	,, ,,	For a like offence - - - - - -	0 5 0	—	

1862.			*Informations laid by Mr. Rickards.*				
Oct. 29	Tees Woollen Mill Co.	Jno. Grey M. Headlam, T. S. Edges, Esqs.; Barnard-castle.	Employing four women after 2 p.m. on Saturday, Sept. 13.	4 0 0	1 7 0		
Dec. 15	Geo. Morgan, Hull -	H. Travers, Esq., S.M.; Hull.	Employing two young persons and one child more than seven days without surgical certificate.	15 0 0	5 8 6	Defendant being bankrupt, penalties not recovered.	
Dec. 23	John Hay, Sunderland	The Mayor, W. Stobert, J. Livesey, J. Candlish, Esqs.; Sunderland.	Employing twelve women, young persons, and children after 2 o'clock on Saturday, Nov. 29.	12 0 0	2 19 0		
„	J. Douglas, Sunderland.	„ „	Employing six young persons after 2 p.m. on Saturday, Nov. 29.	6 0 0	1 12 6		
1863.							
Jan. 5	R. H. Haggie, jun., Willington.	J. Straker and W. Cappin, Esqs.; North Shields.	Not giving 1½ hours for meals; employing four women during the meal times.	7 0 0	1 16 0		
Feb. 26	Edward Casey, Leeds	C. Chadwick and J. Cooper, Esqs.	Neglecting to send his son to school - -	0 5 0	0 14 6		
April 22	John Denby, Wilsden	Alfred Harris and W. Murgatroyd, Esqs.; Bingley.	Employing ten young persons during the dinner hour.	10 0 0	6 11 6		
			Informations laid by Mr. Whymper.				
1862.							
Dec. 12	J. Mallison, Canal Street, Derby.	L. Mann and N. Curzon, Esqs.; Derby.	Employing two children without certificates of attending school.	2 0 0	1 7 0		
„	„ „	„ „	Employing two children before and after 1 p.m. of the same day.	- -	0 14 0	Withdrawn on payment of expenses.	
„	„ „	„ „	Employing two children without having their names registered.	- -	0 14 0	Withdrawn on payment of expenses.	
„	„ „	„ „	Employing two children without obtaining a surgeon's certificate.	-	0 14 0	Withdrawn on payment of expenses.	
„	„ „	„	Employing four young persons without obtaining a surgeon's certificat.	4 0 0	2 15 0		
Dec. 13	J. Mallison, Canal Street, Derby.	„ „	Employing four young persons without registering their names.	- -	1 8 0	Withdrawn on payment of expenses.	
„	Jno. Burton, Lenton Works, Nottingham.	Lord Belper and Rev. G. F. Holcombe; Nottingham.	Employing a young person with false date of first day of employment.	1 0 0	0 14 0		
„	„ „	„ „	Employing a young person with false date of first day of employment.	- -	0 7 0	Withdrawn on payment of expenses.	
„	„ „	„ „	Employing a young person with false date of first day of employment.	- -	0 7 0	Withdrawn on payment of expenses.	

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
				£ s. d.	£ s. d.	
1863.						
Mar. 19	Jno. Wade and Son, Upper Ashley, near Huddersfield.	J. Armitage and Joseph Sykes, Esqs.; Huddersfield.	Employing a child without registering his name -	1 0 0	0 6 0	
,,	,, ,,	,, ,,	Employing a child without registering his name -	1 0 0	0 0	
,,	,, ,,	,, ,,	Employing a child without surgeon's certificate -	1 0 0	0 6 0	
,,	,, ,,	,, ,,	Employing a child without a surgeon's certificate	1 0 0	0 6 0	
,,	Jas. Crosland and Sons, Paddock, near Huddersfield.	,, ,,	Employing four young persons more than seven days without a surgeon's certificate.	2 0 0	1 4 0	Two cases withdrawn on payment of costs.
,,	Milner and Hale, Bradley Mills, near Huddersfield.	,, ,,	Employing eight young persons after 7 p.m. -	8 0 0	2 8 0	
,,	,, ,,	,, ,,	Employing five young persons without surgeon's certificate.	- -	1 5 0	Withdrawn on payment of costs.
,,	,, ,,	,, ,,	Employing two young persons without registering their names.	- -	0 10 0	Withdrawn on payment of costs.
April 2	E. T. Monk, Aspley Silk Mill, near Huddersfield.	T. P. Crosland and L. R. Starkey; Huddersfield.	Employing five women and young persons after 7 p.m.	6 0 0	1 16 0	
,,	,, ,,	,, ,,	Employing one young person without registering her name.	1 0 0	0 9 0	
	,, ,,	,, ,,	Not entering the date when his factory was limewashed.		0 8 0	Withdrawn on payment of expenses.
			Informations laid by Mr. Henderson.			
Jan. 8	Thomas Crankshaw and Co., Livesey, near Blackburn.	Colonel Butler Bowdon, J. Weld, Esq., and Joseph Harrison, Esq.; Blackburn.	Employing a child after 6 o'clock in the evening -	2 0 0	0 13 6	

Jan. 28	" "	" "	Employing nineteen females after 6 o'clock in the evening.	18	0	0	9 12 6	Ten cases withdrawn in court on payment of costs.
			Informations laid by Mr. Measor.					
1862. Nov. 13	Daniel Rhodes and Sons, Scarr End Mill, Earlsneaton.	J. B. Greenwood and T. H. Cook, Esqs.; Court House, Dewsbury.	Employing a boy and two women during the dinner hour.	1	0	0	1 3 0	Two cases withdrawn on payment of costs.
"	" "	" "	Employing a boy without being registered -	2	0	0	0 8 0	
"	Sands Mill, Earlsneaton.	" "	Employing the same without a surgeon's certificate.	2	0	0	0 6 0	
"	Thomas Lacy and Co., Ing Mill, Dewsbury.	" "	Employing a boy under eighteen after 6 p.m.	2	0	0	0 9 0	
"	Joseph Tattersfield, Ing Mill, Dewsbury.	" "	Employing a boy under eighteen after 6 p.m. -	2	0	0	0 9 0	
"	" "	" "	Employing the same without being registered -	-		-	0 5 0	Withdrawn on payment of costs.
"	" "	" "	Employing the same without a surgeon's certificate.	2	0	0	0 6 0	
"	John Hemingway, Little Mill, Dewsbury.	" "	Employing a woman after 6 p.m. - - -	2	0	0	0 9 0	
"	" "	" "	Employing a girl aged 12 after 6 p.m. - -	4	0	0	0 8 0	
"	" "	" "	Employing the same without being registered -	2	0	0	0 6 0	
"	" "	" "	Employing the same without a surgeon's certificate.	2	0	0	0 6 0	
"	" "	" "	Employing the same without school certificate -	1	0	0	0 6 0	
Nov 20.	John Rawson and Sons, Bradford Moor.	Geo. Anderton, Esq., Captain Pollard, and Major Wood; Court House, Bradford.	Employing a boy without a surgeon's certificate -	2	0	0	0 10 0	
"	" "	" "	Employing the same without being registered -	2	0	0	0 8 6	
"	" "	" "	Employing the same without school certificate -	1	0	0	0 6 6	
"	" "	" "	Employing a boy without a surgeon's certificate -	-		-	0 6 6	Withdrawn on payment of costs.
"	" "	" "	Employing the same without being registered -	-		-	- -	Withdrawn on payment of costs.

C

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
1862.				£ s. d.	£ s. d.	
Dec. 8	Edwd. Hemingway and Co., Brooklyn Mill, Newtown Mirfield.	J. B. Greenwood and Charles Wheatley, Esqs.; Court House, Dewsbury.	Employing a child before noon and after 1 p.m. of the same day.	1 0 0	0 9 0	
"	" "	" "	Employing ten other children in the same manner	- -	- -	These cases were not entertained by the magistrates, as it was urged by the defendant's solicitor, that by the 3 & 4 Will. 4. c. 103, s. 43, only one fine was recoverable for the same description of offence committed on one day; and although it was contended that this provision is repealed by the 7 & 8 Vict. c. 15, s. 40, the Bench decided, in all the cases heard on this day, in favour of the defendants, who were accordingly fined for only one specimen of each offence — a decision which has been since reversed by the same bench of magistrates.
"	"	" "	Employing a child without a school certificate -	1 0 0	0 8 0	
"	" "	" "	Employing ten children without the same.	—	—	" "
"	" "	" "	Employing a child without a surgeon's certificate	2 0 0	—	
"	" "	" "	Employing ten children without the same.	—	—	" "

"	George and James Stubley, Bottons Mill, Batley.	" "	Employing one boy after 6 p.m. - - -	2 0 0	0 11 6	" "	
"	"	" "	Employing two other boys after 6 p.m.	—	—		
"	Michl. Sheard and Sons, Valley Mills, Batley.	" "	Employing one woman after 6 p.m. - -	2 0 0	0 11 6	" "	
"	"	" "	Employing seven other women after 6 p.m.	—	—	" "	
"	Fox and Pickles, Newtown Mirfield.	" "	Employing a child after 6 p.m. - - -	2 0 0	0 11 6	" "	
"	"	" "	Employing two other children after 6 p.m.	—	—	" "	
"	"	" "	Employing a child without a surgeon's certificate	2 0 0	0 9 6	" "	
"	"	" "	Employing two other children without the same.	—	—	" "	
"	George and James Blackburn, Little Gomersal.	" "	Employing a woman after 6 p.m. - - -	2 0 0	0 9 6		
"	"	" "	Employing twelve other women in the same manner.	—	—	" "	
"	"	" "	Obstructing the Sub-Inspector in the performance of his duties by putting out the lights, and concealing from him two of the women.	3 0 0	0 13 0		
1863. Jan. 5	Mark Oldroyd and Sons, Carr Mill, Batley Carr.	J. B. Greenwood and E. B. Wheatley Balme, Esqs., Court House, Dewsbury.	Employing two young persons after 6 p.m. -	4 0 0	0 17 0	The same arguments as above were made use of on this occasion, and "a case" asked for, to be decided by the Court of Queen's Bench, if the Magistrates remained of the same opinion; but the chairman acknowledged his previous decision to have been erroneous, and decided that the 43d section of Will. 4. was repealed, and consequently the defendants were convicted in all the cases.
"	James Fenton, Lowfold Mill, Dewsbury Moor.	"	Employing three young persons during the dinner hour.	3 0 0	1 5 0		

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, & Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
1863.				£ s. d.	£ s. d.	
Jan. 26	Henry Roberts and Son, Quarry Mill, Gomersal.	E. B. Wheatley Balme and John Hague, Esqs.; Court House, Dewsbury.	Employing a boy without a surgeon's certificate -	2 0 0	0 9 0	
"	" "	" "	Employing the same without being registered -	2 0 0	0 9 0	
"	James France, Hebble Mill, Thornhill.	" "	Employing two women during the dinner hour -	2 0 0	0 17 0	
"	" "	" "	Permitting five women to remain during the dinner hour in a room in which a manufacturing process was being carried on.	3 0 0	1 18 0	Two withdrawn on payment of costs.
Feb. 9	Richd. Poppleton, Victoria Mill, Horbury.	Edward Tew and William Henry Leatham, Esqs.	Making a false entry in the register of young persons.	5 0 0	0 12 6	
"	" "	" "	Employing three young persons without surgeon's certificate.	4 0 0	2 11 6	One case withdrawn on payment of costs.
"	" "	" "	Employing seven young persons without being registered.	10 0 0	2 16 0	Two cases withdrawn on payment of costs.
"	" "	" "	Employing three children without surgeon's certificates.	2 0 0	1 4 0	Two cases withdrawn on payment of costs.
"	" "	" "	Employing the same without school certificates -	- - -	1 4 0	Withdrawn on payment of costs.
"	" "	" "	Employing a young person without a surgeon's certificate.	2 0 0	0 8 0	
"	" "	" "	Employing the same without being registered -	- - -	0 8 0	Withdrawn on payment of costs.
"	Joshua Foster, Ford Mill, Horbury.	" "	Making a false entry in his register of young persons.	5 0 0	1 0 6	
"	" "	" "	Employing five young persons without surgeon's certificates.	6 0 0	2 8 0	Two cases withdrawn on payment of costs.

Mar. 12	Joseph Smith, Prospect Mill, Bradford.	Joshua Pollard and Willm. Murgatroyd, Esqs., Major Wood, and Captain Pollard; Court House, Bradford.	Employing two women after 6 p.m. - -	4 0 0	1 2 0	
"	John and Saml. Walton, Hollings Mill, Bradford.	" "	Employing five women after 2 p.m. on Saturday -	15 0 0	3 3 0	
April 20	Joseph Jubb, jr., Victoria Mill, Carlinghow, Batley.	E. B. Wheatley Balme and W. W. Battye, Esqs.; Court House, Dewsbury.	Employing twelve young persons without their names being registered.	10 0 0	4 12 6	Seven cases withdrawn on payment of costs.
"	David Blamire, Little Mill, Dewsbury.	" "	Not keeping a register of young persons - -	2 0 0	0 7 0	
"	" "	" "	Not hanging up an abstract of the Factory Acts -	- -	0 5 0	Withdrawn on payment of costs.
"	" "	" "	Not hanging up a notice of meal hours - -	- -	0 5 0	Withdrawn on payment of costs.

Appendix No. 2.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M&F.
Causing death	8	3	4	–	–	–	12	3	15
Amputation of right hand or arm	2	–	–	–	2	–	4	–	4
Amputation of left hand or arm	3	1	1	–	–	–	4	1	5
Amputation of part of right hand	15	10	16	19	4	4	35	33	68
Amputation of part of left hand	11	12	12	12	4	2	27	26	53
Amputation of any part of leg or foot	2	–	–	–	–	1	2	1	3
Fracture of limbs and bones of trunk	26	8	19	9	6	2	51	19	70
Fracture of hand or foot	15	16	14	12	5	3	34	31	65
Injuries to head and face	10	20	14	16	4	1	28	37	65
Lacerations, contusions, and other injuries not enumerated above	123	127	103	135	38	18	264	280	544
Total	215	197	183	203	63	31	461	431	892

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M&F.
Causing death	1	3	–	–	–	–	1	3	4
Amputation of part of left hand	–	–	–	–	–	1	–	1	1
Fracture of limbs and bones of trunk	2	3	6	–	2	–	10	3	13
Fracture of hand or foot	–	–	–	1	–	–	–	1	1
Injuries to head and face	4	2	4	2	1	1	9	5	14
Lacerations, contusions, and other injuries not enumerated above	19	6	6	4	1	1	26	11	37
Total	26	14	16	7	4	3	46	24	70

REPORT of ROBERT BAKER Esq., Inspector of Factories, for the Half Year ended the 30th of April 1863.

Factory Inspectors' Office,
Whitehall, 30th May 1863.

SIR,

I HAVE the honour to present to you my report for the half year ended the 30th of April last. I have within that period personally inspected factories, bleachworks, printworks, and schools in Lancashire, Cheshire, Leicestershire, and Warwickshire.

Notwithstanding the generally depressed state of the trade, I have been compelled to enforce the law against a cotton mill occupier who had been detected overworking; and indeed several others have been reported to me as "nibbling minutes," but, on investigation, I did not think the allegations sufficiently well founded to call for prosecutions.

In the course of the half year a communication was made to me more than once, that a scarcity of textile weavers existed in the south-western parts of England, and also, of operatives in the shoe manufactories of Leicester, (which is now becoming a very important branch of business,) and I therefore submitted the names of enquirers for workpeople to certain gentlemen whom I knew took an interest in the migration of unemployed factory workers, with a view to the introduction of Warwickshire weavers in particular, into the districts where hands were said to be scarce; but I am afraid that in neither instance was there success. I heard, indeed, of workers from Lancashire applying to a mill occupier in Wiltshire, and of their obtaining immediately sympathy, food, and employment; and yet of their leaving again within a day or two, without any expressed cause of dissatisfaction; a result, which is discouraging as respects the migration, and to some extent, the emigration of factory operatives generally.

I am happy to say that the annual number of accidents in my district is diminishing. Much machinery has been fenced off within the last few years; and as no new machinery is now introduced into the mills without covers to gearing wheels, and other modes of protection from accidents, I trust that in every succeeding year these untoward consequences of factory labour will gradually become fewer. I think that this may be fairly claimed as another beneficial result of the Factory Acts, and of periodical inspection, and one of no small importance to the welfare of the workers; and which has been conceded to continued and temperate remonstrance with suggestions.

The "Act to prevent the employment of women and children during the night, in certain operations connected with

bleaching by the open-air process," came into operation on the 1st January of the present year; and it has had the effect of prohibiting labour in such works, to the best of my belief, before six o'clock in the morning, and after eight o'clock in the evening. I say "to the best of my belief," because it will be manifest to you, that with only one Sub-Inspector in Ireland, and with an additional duty imposed upon him of visiting open-air bleachworks by night, it is quite possible that there may be some such works in which the law is evaded. But if it has done this, it is the extent of its usefulness. It does not, like the Factory Acts, enforce physical condition as essential to labour, when in competition with the steam engine, for very long hours. It does not demand education for the young, but rather prohibits it by the length of day during which little children, even of tender years, may be lawfully employed. It does not, even as the Bleaching and Dyeing Works Act does, adopt factory hours when there has neither been a fluctuation in trade nor other legal cause for working up lost time, but it goes much further when time has to be made up. It does not even permit inspection, unless there is some external evidence of employment beyond the prohibited hours; but it leaves the regulation of such works to the chance visit of an official who may happen to be out either very early or very late, unless he is informed of an offence, by somebody, somewhere; or by an espionage, which it is neither desirable nor proper to encourage.

To all intents and purposes, therefore, as an Act for any benevolent or educational purpose, it is a failure; since it can scarcely be called benevolent to permit, which is tantamount to compelling, women and children to work 14 hours a day with or without meals, as the case may be, and perhaps for longer hours than these, without limit as to age, without reference to sex, and without regard to the social habits of the families of the neighbourhood in which such works are situated.

I showed in my last report that at the close of 1862 there were 5324 persons employed in the open-air bleach works of my district, of which number 1288 were women and girls, and 611 were boys; and that many of these boys were employed all night, many every night till 12 o'clock; that the women and girls were employed in very high temperatures, which on irrefragable medical testimony were productive of serious functional diseases, particularly of the chest. I stated that even among the men there was a very great desire that their hours of labour should be shortened; but, especially, that those of the women and children should be; and that the almost unvarying testimony of the managers of such works in Ireland was, that so long as the labour of men above 18 years of age was not interfered with, there was nothing in

624

the work itself, nor in any part of it, to require the attendance of women and children longer than from 6 A. M. to 6 P. M. To these statements there has been no gainsaying answer, and there is therefore no valid reason why the hours of work of women and children should not, in open air bleach works as in other works, be limited to factory hours, and to factory regulations.

It may be said that, in Ireland, where so much of open-air bleaching is carried on, great attention is, and has ever been paid, to the education of children at very early ages, and therefore, that the same need does not exist there as elsewhere, for the educational provision of the Factory Acts; and that as the work is mostly out-door work, and exercise rather than labour, the arguments which referred to the physical detriment of factory labour are also inapplicable. But, with regard to the first of these reasons, I think it is axiomatic that he who does not read is in some danger of forgetting all he ever knew, and that there are examples in abundance, of children having been several times taught to read who have over and again lost the faculty by the neglect of its continuance; and with regard to the second of them, it is certain, that of all classes of natural labourers in any country, the out-door labourer exhibits the earliest evidences of physical deterioration; and that upon his forehead, the early lines of age advance with the greatest rapidity. Moreover they do this in spite of his early hours of rest, which are really a necessity for his early hours of rising. But they do it infinitely faster in him whose labour, though it is of the same nature, is in competition with the steam engine, a danger which the agricultural steam implement maker has foreseen, and who accordingly enables the ploughman to ride upon his implements that his strength may not be overtaxed.

State of Trade.

The state of the woollen, worsted, and flax trades of my district during the last half year has been good. Of the silk trade I am afraid it is too true, that the fashion of wearing ribbons has become greatly superseded by velvets, by leather and by the "styles" which are more novel and more acceptable than ribbons. This is the real cause to which the decline in this branch of the silk trade is to be attributed; and when it will revive, if ever, is extremely questionable. At all events, so far as I am able to judge, or to form an opinion on experience, the sooner that new trades are attempted in such places as Coventry, or that emigration is adopted for them, the better.

This fluctuation, as an effect of fashion, is the danger as it is the history of trades in similar localities, whose

popularity and prosperity depend as it were upon one kind of industry, the production of which is not an absolute necessity; and it is a danger, the effects of which can only be averted by divisional labour. The following is a return of the state of Coventry in April last, taken from the "Coventry Herald." "It appears that there are vacant in this city at the present moment, 25 public houses, 108 business premises, 681 front dwelling houses, and 515 houses in courts, making a total of 1329 houses. The following factories also, heretofore engaged in the ribbon trade and capable of holding or employing the number of hands as under-mentioned are empty, and the machinery idle: a factory having room for 350 persons; another for 260 persons; two for 40 persons; one for 50; one for 100 persons, one for 80 persons. It is also computed that in other large factories in which there is room for 1,000 persons, about one third are unoccupied."

I believe that there is an effort now being made to introduce other trades into Coventry in order to supply these vacancies, but with what success remains to be seen.

With respect to the cotton trade of my districts, there has been, since my letter to you of the 22d April, a minute but sensible improvement; not everywhere, but in certain localities. Several mills have been partially set to work since that time, and I hear of others that are likely to be started very shortly. In that letter I shewed that there was cotton in the country, and known to be coming sufficient to employ all the cotton consuming spindles half time till November next, and of course for a very much longer period if all the mills were not set to work at once; and I think we shall see, that the steps which have since been taken to give labour and wages to the unemployed factory operatives, will tide us over a time which has to be dealt with, and over circumstances which have to be considered from so many points of view. I only hope we shall not be too sanguine of immediate success. I know the textile trades well enough, and in my long experience have seen the phases of good and bad times grow so fast, and approximate so closely by the force of capital and the productive powers of machinery, that I am aware there is great risk of our running into a sudden belief this cotton panic has passed away as did that in 1848 and others which preceded as well as succeeded it. But the growth of machinery in other countries since 1848 must not be lost sight of, nor the consequent capability of these countries now, to supply themselves with goods which were formerly bought in English markets. And although it may be true that the population of the world has increased one half within the same period, yet the productive powers of the loom and spindle, together with the additional amount of machinery which exists now, to that which then existed, have increased

631

production in more than a like proportion. There are therefore sure to be "ebbs and flows" in the cotton trade, before even its partial readjustment can take place, which we must certainly calculate upon, and we ought therefore to be neither too sanguine at its progress, nor too disappointed at its delay.

There seems to be very little doubt, but that Surat cotton will come into extensive use, particularly when the present impulsive demand for it has subsided into a steady trade, and when the frauds which are practised in it both abroad and, if report speaks truly, at home, (which are consequent upon that demand, and which might to some extent have been anticipated,) have ceased to be practised.

With respect to its abstract value as a raw cotton—I think the following anecdote about it (which I know to be authentic) shews it most practically, apart from the objections to it which are serious, but which are evidently removable. One of the best judges of cotton cloth in Lancashire having complained to a manufacturer, that he was perpetually buying cloth as made of American cotton which had more or less of Surat in it, and that he could always tell it, and that such attempted deception was very disappointing, was informed by him, that he thought a cloth could be made of all Surat cotton of such a quality that nobody could distinguish it from one made of bowed Mobile. The buyer said he was sure that could not be, but the manufacturer said he would try, and he did try, and on submitting both cloths to the buyer he placed his hand on the Surat cloth for American, and vice versâ. It matters not, so far as the proof of the properties of Surat cotton are concerned, whether this experiment was tried regardless of expense; and it may therefore be deemed an inconclusive one as to the employment of Surat cotton by the trade. I do not know whether it was so or not; but it certainly proves that Surat cotton possess exceedingly valuable properties, which perhaps need only further developing to render its use general, and that there really is no difficulty in it which cannot be overcome.

Looking at the machinery as I find it in the different mills, comparatively but little alteration is required apparently to enable all spinners (unless their machinery is very old, when the sooner it is replaced the better,) to use Surat cotton profitably, and I believe that many manufacturers have been at expenses for alterations which were unnecessary. But after all, the hesitancy with which the generality of spinners forbear to use Surat cotton at once, is a very happy circumstance, for if all the trade were to "rush into it" together, the consumption of it would very soon overtake the supply. At its

present rate of introduction, this will be avoided, and demand will doubtless bring produce, and continued new appliances will render that produce as available as ordinary American cotton for our markets, and we shall thus acquire an independence of America for a staple which we consume so largely, and which sustains so large a portion of our textile populations. I saw in one mill an attempt to mix bleached flax with cotton, as I have indeed seen it attempted elsewhere; but the manager, whilst admitting that his manufacture was a success, also admitted that he should cease to "make out with flax when Surat cotton was at what he called a paying price." My wonder was, not that he had succeeded in assimilating flax to cotton in appearance, and mixed it so as to spin it as well as he did, but that he should have attemped it at all, for he knew nothing about the deficiency of the flax crops in Europe generally, nor of the probable price which it must soon have attained, had his success induced others to adopt the same expedient.

There are some mill occupiers who evidently look forward to retiring from the trade altogether, and there are some mills which will never resume operations for other reasons than a want of cotton.

At Wigan proper, which is a district chiefly using American cotton, there has been a greater scarcity of factory work than I think anywhere: and yet, as I have before said, there are there greater preparations made for resuming work than anywhere else, when trade revives. This anomaly has been supposed to arise,—

Firstly, from Wigan being nearer Liverpool, and therefore that the cost of transit is cheaper; secondly, from wages being lower; thirdly, that in consequence of the population being what is called a collier population, hands are more plentiful; and, fourthly, that fuel is cheaper, and the supply of water for condensing purposes is cheaper and more accessible and constant. But there is nothing really in these arguments, excepting perhaps with reference to coal and water, both of which are a little cheaper than in some other places. When I speak of water being cheaper, it is with reference to the rent charge payable to the canal companies for permission to draw it from thence on condition of returning it after using it, canals being a common source of the supply of water to factories, in colliery districts especially, where the natural supplies are usually interfered with in sinking for and getting coal. In Wigan as in Stockport I heard the same opinions expressed about Surat cotton as in other places, namely, "give us plenty of it, and a fair sprinkling of Egyptian and Brazil, and we should scarcely care whether we ever saw American cotton again." A solution of the question why so

633

many mills are being built or extended, at Wigan and elsewhere at the present time, may lie I think in the fact "that labour is cheap, bricks and mortar plentiful, machinery can never be better bought, and cotton will be sure to come from somewhere." The "fair sprinkling of Egyptian and Brazil" spoken of above and the absorption of Indian cotton is shewn pretty clearly in the table on the following page, which exhibits also the progress of the cotton trade since January last, and its position on the 29th of the present May. In the datum year of 1860, the cotton consumed per week was as follows:—

Year.	American cotton.	Brazilian.	Egyptian.	Indian.	Total.
	bales.	bales.	bales.	bales.	bales.
1860	41,000	2,150	1,820	3,330	48,300
May 29th 1863	1,160	2,930	3,520	21,160	28,700

being on the average 3 days 5 hours employment a week. We see now how American cotton has almost ceased to be employed, owing, no doubt, to the diminishing stock, and how Brazilian and Egyptian and East Indian has supplied its place, not only at home but abroad; we see also the weekly export, import, and home consumption of these four kinds of cotton, and each average per month; the average weekly price of each kind per lb.; the gross quantity of bales consumed per week; and the hours of work per week, which the consumption would have given to all the operatives upon an average, which latter is the principal object of the table. Thus it appears, that the stock of American cotton has fallen since the 1st of January from 70,000 bales to 41,660, and that as a matter of course its consumption is diminishing, even though the price has fallen from 1*d.* to 2*d.* per lb.; that the stock of Brazil and other cottons has increased upwards of 12,390 bales, and that its consumption has nearly doubled and its price has also diminished; that the stock of Egyptian cotton has increased not less than 56,810 bales, whilst its consumption has also increased with a reduction in the price per lb. of as much as 3*d.*; and that the stock of East Indian cotton has fallen from 260,050 bales to 142,580, being a diminution of 119,470 bales, with a reduction in price per lb. of about 1*d.*

What is very remarkable is the increasing amount of export within the last few months, particularly of Indian cotton, for, with the exception of February, when there appears to have been a general check to the cotton trade, the export of Indian cotton has increased from 3,733 bales a week to 11,675. This may

have arisen from two causes—from a better appreciation of its properties, as well as from its price, and also from a doubt of the condition of what remains of the stock of cotton in America since it was gathered, added to what that condition may be should it be some time longer before that cotton reaches this country; for I was informed by a manufacturer, that so much had the condition of one parcel which he described, changed for the worse since it was gathered, he had refused to

Weekly IMPORT into, EXPORT from, and Home Consumption of, Cotton in the Export, and Home

Week ending	American.			Average of the Month per Week.			Price per lb.	Brazil.			Average of the Month per Week.			Price per lb.
	Export.	Import.	Home Consumption.	Export.	Import.	Home Consumption.		Export.	Import.	Home Consumption.	Export.	Import.	Home Consumption.	
							d. *d.*							*d.* *d.*
Jan. 9 -	876	81	1700				24½ to 27½	586	5436	1630				23 to 24
„ 16 -	326	35	680				- -	260	3320	1400				- -
„ 23 -	601	0	790				24 to 27	180	747	740				22 to 23
„ 30 -	280	1596	580	520	428	937	23 to 26	128	7554	1670	288	4264	1360	21 to 22
Feb. 6 -	50	628	570				- -	50	2258	770				- -
„ 13 -	1027	813	230				- -	699	2856	550				- -
„ 20 -	2836	33	700				21½ to 25	429	202	70			—	20 to 21
„ 27 -	2078	1865	1060	1497	834	640	- -	739	1725	1470	429	1760	715	- -
Mar. 6 -	3568	1283	760				21 to 25	482	3940	2070				19 to 20
„ 13 -	2886	15	1160				21½ to 25	436	1760	3340				19½ to 20
„ 20 -	1785	3194	1920				22 to 25	913	740	4790				20 to 20½
„ 27 -	1600	247	1390	2459	1184	1307	- -	620	14544	2220	612	5246	3105	- -
April 2 -	686	1000	1600				- -	1031	508	3990				20½ to 21
„ 10 -	1307	254	1220				- -	1100	3510	2670				- -
„ 17 -	692	2661	2140				- -	1378	555	4620				- -
„ 24 -	247	1178	1370	733	1043	1582	- -	793	3283	2030	1075	2014	3327	20½ to 21
May 1 -	200	511	600				21½ to 24½	356	891	1270				- -
„ 8 -	818	379	2210				23 to 25	2770	578	3170				21 to 22¼
„ 15 -	1663	1553	2120				23½ to 25½	964	7334	3760				21½ to 23
„ 22 -	277	3288	1040				23 to 25½	459	2630	1050				21 to 22¼
„ 29 -	899	5	1160	971	1131	1426	- -	513	0	2930	1012	2286	2436	21½ to 23

give 1*s.* 1*d.* per lb. for what he would otherwise have gladly given 2*s.* 4*d.* It will be seen from this table also that in the first two weeks of January there was a little more than a third of work for the people; that from the 23rd of January to the 13th of March there was but little more than a day and a half employment a week, but that since then it has increased to an average of not quite three days and a half—being rather more than half time.

United Kingdom from Jan. 1 to May 29, 1863, in Bales, with the Average Import, Consumption per Month.

Egyptian.			Average of the Month per Week.			Price per lb.	East Indian.			Average of the Month per Week.			Price per lb.	Gross Quantity of Bales consumed per Week.	Weekly Employment of Workpeople in Days and Hours.
Export.	Import.	Home Consumption.	Export.	Import.	Home Consumption.		Export.	Import.	Home Consumption.	Export.	Import.	Home Consumption.			
						d. *d.*							*d.* *d.*		d. h.
100	2998	2770				24 to 25	3608	26630	14770				16½ to 17¼	20,870	2.6
6	8385	1530				24 to 25½	3971	6947	18480				16¾ to 18	22,096	2.7
247	3883	1940				23 to 24	2839	12999	9430				16 to 17⅓	12,900	1.6
0	12372	2820	86	6909	2265	22 to 22¾	4516	3842	6470	3733	12604	12287	15½ to 17	11,540	1.4
73	7289	2250				21 to 22	1450	864	11070				- -	14,660	1.8½
43	3234	1830				20½ to 21	4726	2323	8990				15½ to 17¾	11,600	1.4½
118	8280	1140				19½ to 20⅝	3165	30164	9090				15 to 16¾	11,000	1.3½
142	8692	1090	94	6873	1577	- -	3518	5488	10220	3214	9709	9842	15 to 16¼	13,840	1.7½
100	3508	1640				19 to 20	3955	9407	9950				15 to 16¼	14,420	1.8
43	4162	2360				19 to 20½	5299	17706	8390				14 to 16¼	15,250	1.9
28	3889	4650				20 to 21½	7571	3775	20170				14 to 16½	31,530	3.8½
91	2740	1230	65	3574	2470	- -	6731	26673	16190	5889	14390	13675	14½ to 17	21,030	2.6
27	1485	4410				20½ to 22	3728	17089	17570				- -	27,570	3.8
70	4892	2030				20½ to 21½	4919	1665	18680				15 to 17½	24,600	3.0½
129	8045	3060				- -	8550	14924	19270				15 to 17¼	29,090	3.6
201	4607	3390	106	4757	3472	- -	8608	41522	18280	6451	18800	18450	15 to 17½	25,070	3.2
232	518	2040				20 to 20½	9551	26306	10280				- -	14,190	1.8
301	6531	5150				21 to 21½	12436	15874	37010				14½ to 17½	47,540	5.8½
384	5200	3800				21½ ot 22	9048	40025	23260				15¼ to 17½	32,940	4.0½
317	4700	2380				21 to 21½	16558	28189	14900				15¾ to 18	19,370	2.4
232	8919	3520	933	5174	3378	- -	9880	7114	21160	11675	18230	21322	15½ to 18	28,770	3.6

Permit me to express the gratification which I have felt on witnessing the efforts of many mill occupiers in behalf of their work people. I entered one large mill yard at a quarter to 12, just as their unemployed workers were receiving their daily allowance of soup—which was made on the premises in an extemporized kitchen, and on which premises there was also a dining room for the men. The soup appeared to be made of excellent materials—of meat, carrots, and rice, &c. All the unemployed persons in this mill had been supplied with this soup and partly with money, for upwards of a year, at a cost of 1,700*l.* In another factory, wholly idle, money and sacks of flour were shown me, as ready to be given out in like manner. In a third, meat, sugar, tea, and other provisions were also prepared; and I have reason to believe that this eleemosynary system has prevailed very extensively. Such charities are wise as well as benevolent—they have the effect not only of keeping the hands, but of keeping them together. In many instances they have been largely dispersed, and the "getting of them together again," whenever trade may revive, will not only be a very costly but a very difficult operation. There will be much spoiled work to throw aside, and a great many unevennesses to adjust before the cotton manufacture will run in the same groove that it did before the famine: but it will not be without a useful lesson if it inculcates a better understanding between the employers and the employed: if it teaches the employers the necessity of a moral supervision over their workers, as a means of inducing higher principles among those who labour for them, and if it points out to the latter an economy which may hereafter save them under similar circumstances from the degradation of semi-pauperism, and from the sufferings which for the last two years they have had to endure, very much for the want of it.

It can hardly be said, I think, that the great body of cotton spinners have ever looked fairly at the question of the cotton supply. They have never had occasion, and therefore have never very much troubled themselves with it. They have been rather impressed, and continue to be, though a little shaken perhaps in their faith, with the great fact of the cotton trade, of its enormous wealth and power, and, as they believe, of its vital importance to the interests of the world; and therefore they have gone on building mills, and fitting them with machinery, as if the production of cotton somewhere, and the possession of it by them at some time, was an event as certain as time itself.

This mode of dealing with the primary question is in fact the history of our textile manufactures. Take the growth of flax, for example, which appears to be decreasing every where whence we have hitherto been accustomed to be supplied; and though an annual knowledge of the acreage

sown is as essential to the vitality of the linen trade, as where cotton is to come from, is to the cotton trade, yet the growth of flax is exciting very little extraordinary attention. And though the changes which are yearly taking place in agriculture, and the diminution of cottier farms (which are peculiarly favorable to flax cultivation, owing to the cheapness of home labour, and the facility with which flax can be prepared in the first instance,) is still further decreasing it, how few persons there are who seem alive to the necessity of statistics on the subject. In England we have no such statistics. In Scotland they have been given up for want of public spirit sufficient to carry them on. In Ireland they have been collected for years by Mr. Donelly, in the most satisfactory manner, in proof of what might be done elsewhere if attempted. And so with regard to English wool, which, of late years, has become so valuable a commodity, not only to our own manufacturers, but to those of other countries also. We know nothing with certainty about its growth. We guess that there is a sheep to an acre on all the farm lands in England; but whether it is so, or not, we are totally in the dark,—when a remuneration to the standing overseers of parishes annually, trifling in value in comparison with the value of the information, would supply us with the knowledge which is so much to be desired.

We may rest assured that but for Australia, and even with Australia, but for rags reduced to wool again and re-manufactured, many of our woollen mills would long ago have been at a standstill; and, with regard to flax, if there should be a flax famine as there has been a cotton famine, we should again suffer extremely, which sufferings would be aggravated by the consideration that by a little timely forethought they might have been ameliorated if not averted.

To show you the apathy which exists on this subject, and the indifference with which it is treated, a company was started in Yorkshire a few months ago (amongst whom were several flax mill owners) for the purpose of collecting flax in this country from the farmers, and of preparing it for the trade, which has been broken up for want of encouragement even from the trade itself.

I mentioned to you in my letter of the 22d April last, that already some of the workpeople in mills "were looking forward to the time when things would be different." Since then, there has been a threatened strike of factory operatives at Darwen. I copy the paragraph from the Manchester Guardian of the 3rd of June, in which this fact was recorded, not only to show the fact, but on account of its terms, which are rather remarkable.

MANCHESTER GUARDIAN, June 3d, 1863.

Threatened Strike of Factory Operatives at Darwen.—Though the factory workers of Darwen have suffered many privations

during the cotton famine, and have scarcely recovered its effects, it is to be regretted that there are signs of a dispute between Messrs. Nichols and Ashton, manufacturers of Over Darwen, and their power-loom weavers, likely to result in a strike. A meeting of the weavers was held on Monday evening, to consider what steps should be adopted in regard to the dispute. Two operatives, named Fielding and White, addressed the assembly, and condemned the course taken by Messrs. Nichols and Ashton in insisting that a 26-inch cloth should be woven upon 54-inch looms, leaving nearly one half of the reed space vacant, at the same rate of remuneration as if it were manufactured upon the narrow looms. A proposition that the weavers should resist the arrangement was adopted, and it was also resolved that the whole of the weavers engaged on such looms should to-morrow (Thursday) give in a fortnight's notice to leave their employment, unless meanwhile some settlement could be amicably made. The question has created some interest, as it is said that Messrs. Nichols and Ashton are only carrying out a system adopted in other towns.

This paragraph says that "the factory workers of Darwen have suffered many privations during the cotton famine, and have scarcely recovered from its effects," which looks as if the cotton trade of Darwen had latterly so much improved, and so soon had its sufferings been effaced, that the weavers were enabled to resist an arrangement for work which had been adopted without open remonstrance in other towns; and that "unless amicable means were resorted to for altering that system they were prepared unanimously to give notice to leave their employment in a fortnight." Happily this threatened strike has passed off for the present; for at a subsequent meeting of the weavers a deputation was appointed to negotiate terms with the employers, and thus to prevent all further annoyance, it being understood that, under any circumstances, no further steps should be taken for a month.

Of the reasons for this resistance, or of the terms of employment between the weavers and the masters, I know nothing, as it did not happen in my district; but it is fair to the weavers that they should not, à priori, be condemned, even under the present circumstances of trade. There are sometimes cases of oppression in the factory districts by right over might (happily they are but few), which excite the operatives to do that which they would never otherwise think of doing. I have myself had lately to direct prosecutions against one cotton mill occupier for having in these pinching and painful times deducted 10*d.* a piece from some of the young workers employed by him, for the surgeon's certificate, (for which he himself had only paid 6*d.*,) when only allowed by the law to deduct 3*d.*, and by custom nothing at all; and for making false entries in his register

in order to evade the use of certificates, until it was dangerous longer to avoid it. And, I have been informed of another, who, in order to keep without the law, but to attain the same object, charges the poor children who work for him a shilling each, as a fee for learning them the art and mystery of cotton spinning so soon as they are declared by the surgeon fit and proper persons for that occupation. There may, therefore, be under-current causes for such extraordinary exhibitions as strikes, not only wherever they arise, but particularly at such times as the present, which, without explanation, render them inexplicable to the public understanding.

On the point of closing this Report, I received from a working friend the following printed address to the factory operatives of Lancashire, &c. on the subject of emigration, showing that the workpeople are about to act for themselves in this matter. The statistical statements of exports and official value mentioned in the little pamphlet are startling enough, and experience certainly seems to confirm their statements, that the phases of good and bad times in all the textile trades, arising from various causes, and amongst them from "the displacement of labour to cheapen production," have become inevitable. The question of a remedy is one worthy of consideration: if it be emigration, it would seem as if the rules of the association which has issued this address had been well considered. I beg to print this address in extenso, as an instance of thought, resolution, and moderation on the part of the working classes of Lancashire, which, under existing circumstances, deserves great commendation, and forms but another proof of what education has done for the textile districts in late years.

To the Factory Operatives of Lancashire, &c. &c.

Fellow Workpeople,

The emigration of our surplus labour being now an almost universally acknowledged necessity, little need be said on the subject on this occasion. We shall, therefore, confine ourselves to the enunciation of one or two facts to show that such necessity is not of recent origin, but that the importance of emigration has been felt in a greater or less degree, and resorted to with advantage, even in the most flourishing state of trade known to the country during the last forty years.

That a large emigration of factory workers is now absolutely essential to raise them from their present prostrate condition, few will deny; but to show that a continuous stream of emigration is at all times demanded, and without which it is impossible for them to maintain their position in ordinary times, we beg to call attention to the subjoined facts:—

In 1814, the official value of cotton goods exported, was 17,665,378*l.* sterling, whilst the real marketable value was 20,070,824*l.* In 1858, the official value of cotton goods exported, was 182,221,681*l.*; but the real or marketable value was only 43,001,322*l.* being a ten-fold quantity sold for little more than double the former price.*

To produce results so disadvantageous to the country generally, and to the factory workers in particular, several causes have co-operated, which, had circumstances permitted, we should have brought more prominently under your notice; suffice it for the present to say that the most obvious one is the constant redundancy of labour, without which a trade so ruinous in its effects never could have been carried on, and which requires a constantly extending market to save it from annihilation.

Our cotton mills may be brought to a stand by the periodical stagnation of trade, which, under present arrangements, are as inevitable as death itself; but the human mind is constantly at work, and although we believe we are under the mark in stating that six millions of persons have left these shores during the last twenty-five years, yet, from the natural increase of population, and the displacement of labour to cheapen production, a large per centage of the male adults in the most prosperous times find it impossible to obtain work in factories on any conditions whatever, for we have it on the authority of the factory inspectors, that while the number of spindles in operation during the last twelve years has increased 42 per cent., the increase in the number of adult males employed is only 28 per cent. Can we wonder then, when we find all the avenues to independent and remunerative employment closed against us, that a large and comprehensive plan of emigration is imperatively demanded?

As the rules now submitted to your notice for the promotion of emigration are the result of a first attempt, they will, it is greatly feared, be in a crude state for the purpose, and it may be in some instances wide of their intended objects. The Committee, however, indulge the hope, that the best possible construction will be put upon their work, and that they shall obtain the credit of having done their best under the circumstances.

That omissions may be supplied and improvements made as soon as possible, any suggestions sent to the Secretary, 51, Jersey Street, Manchester, will be esteemed a favour, so that no time may be lost, and the business of the next delegate meeting may be facilitated.

Some difficulty may probably be experienced with regard to the meaning of the 5th and last rules; the Committee hope, however, to be able to show at the next meeting, that they have done all in their power to deal out even-handed justice to all concerned, and they trust they have succeeded.

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*Dr. John Watts on Machinery.

641

The delegates present, and districts represented at the meeting in Manchester on the 24th inst., was in number as follows :—

Manchester coarse spinners	2	Bolton	2
Ashton-under-Lyne ditto	1	Burnley	1
Stockport	1	Oswaldtwistle	1
Hyde	1	Blackburn	1
Heywood	1	Mossley	1
Preston	2	Accrington	1
Farringdon	1	Broadbottom	1
Tyldesley	1		

Fifteen districts represented by eighteen delegates. By letter —Chorley, Over Durwen, Westleigh, Enfield, and Farnworth.

RESOLUTIONS.

1.—That while this meeting feels the importance and desirableness of forming committees in the various towns, to solicit public subscriptions to emigrate our surplus labour to our colonies, it is, nevertheless, absolutely essential that the various branches of factory operatives of Lancashire, &c. &c. should forthwith resolve themselves into an Emigration Society, and endeavour to raise funds themselves for the same purpose.

2.—That the contributions to such Emigration Society shal be one penny per member per week.

3.—That a committee of three be appointed to draw up rules and report progress as early as possible.

4.—That no time may be lost, the delegates present recommend their various constituencies to commence raising subscriptions for emigration purposes without delay.

5.—That this meeting be now adjourned for a fortnight, Sunday, June 7th, 1863, at the usual place of meeting in Manchester, and that the districts be requested on this occasion to send the same delegates who have attended here to-day.

Thanks having been voted to the chairman, the meeting broke up.

Signed on behalf of the meeting,
THOMAS MAWDSLEY, Secretary.

Manchester, May, 25th, 1863.

PROPOSED RULES for the PURPOSES OF EMIGRATION.

NAME OF SOCIETY.—That this Society shall be denominated the COTTON DISTRICTS EMIGRATION SOCIETY, to which all branches of factory workers shall be eligible to become members by conforming to its rules and regulations.

OBJECTS.—That this Society is formed for the purpose of raising funds by which its members, who are willing and desirous to do so, may be enabled to emigrate to the British Colonies and to the United States of North America.

1.—That this Society shall consist of an unlimited number of members of all branches of the cotton trade.

2.—That it shall be governed by an Executive Committee consisting of five persons, with power to add to their number, who shall be appointed by a general delegate meeting; such Committee to remain in office six months, and be eligible for re-election. To hold its sittings at such time and place as a general delegate meeting may decide.

3.—That any person wishing to become a member, must give in his name to the Secretary of his locality, and pay one penny per week for each share he may hold in the Society.

4.—When the necessary funds shall have been obtained for the purpose, the Executive Committee shall apportion to each district, according to its numbers, how many members it is entitled to select as emigrants; each person so selected to receive the sum of 5*l.* per share. Every member to be allowed to take up four shares, and no more.

5.—That each district containing 500 members, shall, in accordance with the 4th rule, be entitled to send out one emigrant, or more, according to the amount of funds at the disposal of the Executive Committee; but in the case of districts not containing 500 members, it shall be the duty of the Executive to decide by ballot which of such small districts shall have the preference in sending the above-named number of emigrants; but the district to which such preference shall have been given, shall not send out further emigrants till all the districts placed in similar circumstances have exercised the same right.

6.—That it shall be left to the districts to adopt their own method of selecting their emigrants after the rightful number shall have been apportioned by the Executive Committee.

7.—That in every case of persons emigrating, it shall be the duty of the Executive Committee to pay the passage money to the emigration agent, and the surplus, if any, to be paid to the intending emigrants.

8.—Any person being allotted for, and not desirous of emigrating, shall be entitled to receive one fifth of the amount allowed per share, the remainder to go to the funds of the Society.

9.—That any member holding two or more shares, shall, when balloted for one of them, take precedence of all others in receiving the amount of the remainder of his shares.

The following gentlemen have been appointed certifying surgeons during the past half year:—

W. H. Davies, Esq., M.D., Tean, Staffordshire.
G. H. Griffiths, Esq., M.D., Church Stretton, Salop.
J. Smith, Esq., Castle Donnington, Leicestershire.
G. A. Haslam, Esq., Market Drayton, Salop.

Ireland.
James Minniece, Esq., Templepatrick.

Appendix No. 1.

Return of Prosecutions for Offences against the Factories Regulation Acts, in the District of Robert Baker, Esq., during the Six Months ended 30th April 1863.

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, and Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	Remarks.
			Information laid by Mr. Darkin.	£ s. d.	£ s. d.	
1863. Feb. 3	Executors of the late William Cowan, Flax Spinners, Liscolman.	Charles Douglas, Charles G. Stuart, and Marcus Gage, Esqrs.; Dervock Petty Sessions.	Employing fourteen females and young persons after 6.0 p.m.	28 0 0	7 0 0	
			Informations laid by Mr. Steen.			
April 8	Robert Orme, Cotton Spinner, Shaw Heath, Stockport.	Ephraim Hallam, Esq., Mayor, William Williamson, Esq., Stockport Petty Sessions.	Employing five young persons and female after 6 p.m.	5 0 0	2 13 6	
,,	,, ,,	,, ,,	Employing six young persons and females after 6 p.m.	- -	2 2 0	Withdrawn on payment of costs.
April 24	Wilde, Brothers, Cotton Spinners, Pemberton, near Wigan.	Reece Bevan, Esq., Rev. Howard St. George, Wigan Petty Sessions.	Employing a young person without registration -	2 10 0	1 2 6	
,,	,, ,,	,, ,,	Employing a young person without registration -	2 0 0	1 2 6	
,,	,, ,,	,, ,,	Employing a young person without a surgical certificate.	2 0 0	1 2 6	
,,	,, ,,	,, ,,	Employing a young person without a surgical certificate.	2 0 0	1 5 0	
,,	,, ,,	,, ,,	Emyloying a child without registration - -	- -	0 7 6	Dismissed on payment of costs.
,,	,, ,,	,, ,,	Employing a child without a surgical certificate -	- -	0 15 6	,, ,,
,,	,, ,,	,, ,,	Having mill gearing unfenced, with which young persons were liable to come in contact.	- -	0 7 6	,, ,,
,,	,,	,, ,,	For not lime-washing the tops of rooms - -	- -	0 6 6	Withdrawn.

643

LIST OF PROSECUTIONS—*continued.*

Date.	Names and Addresses of Persons summoned.	Names of the Magistrates who heard the Case, and Place of Hearing.	Nature of the Offence.	Amount of Penalty.	Amount of Costs.	REMARKS.
1863.			*Informations laid by Mr. Haydon.*	£ s. d.	£ s. d.	
Feb. 21	Ambrose Lee, Wigston -	John King, Esq., and Thomas Stokes, Esq., County Public Office, Leicester.	Not giving notice of occupation - - -	2 0 0	0 9 0	
"	" "	" "	Employing persons without having their names on the register.	2 0 0	0 9 0	
Mar. 23	John Billings, Hinckley -	William Brookes & Henry Townshend, Esqs., Town Hall, Hinckley.	Employing persons without having their names on the registers.	2 0 0	0 9 6	
"	Thomas Goadby, Hinckley	" "	Employing persons without having their names on the registers.	2 0 0	0 9 6	
"	Atkins Brothers, Hinckley	" "	Employing persons without having their names on the registers.	2 0 0	0 9 6	
"	Earp & Bostock, Hinckley	" "	Employing persons without having their names on the registers.	2 0 0	0 9 6	
"	Flavell & Abell - -	" "	Employing persons without having their names on the registers.	2 0 0	0 9 6	
			Informations laid by Mr. May.			
Apr. 20	Lawrence Ashworth, Burnley.	Thos. Hordern Whitaker, and Jno. Heelis, Esqs., Burnley.	Employing a child without a schoolmaster's certificate.	1 0 0	0 13 6	The defendant pleaded guilty to the four charges; but the three last were withdrawn by the desire of the Bench, intentional neglect not being proved.
"	" "	" "	Employing the same without registering her name			
"	" "	" "	Employing the same more than seven days without a surgical certificate.	- -	1 4 0	
"	" "	" "	Employing the same before noon and after 1 o'clock p.m. on the same day.			
"	Robert Emmott, Burnley	" "	Allowing his child to be employed without causing her to attend school.	0 5 0	0 13 6	
Apr. 27	Henry Hargreaves, Burnley.	" "	Employing four young persons more than seven days without surgical certificates.	8 0 0	2 14 0	

			Informations laid by Mr. Hickes.						
Mar. 18	Baldwin Brothers, Stourport.	Thomas Simcox Lea, and Slade Balder, Esq., Magistrate's Office, Stourport.	Employing a young person after 6 p.m. - -	1	0	0	1	5	6
"	" "	" "	Employing a young person after 6 p.m. - -	1	0	0	1	5	6
"	" "	" "	Employing a young person after 6 p.m. - -	-	-	-	1	2	6
"	" "	" "	Employing a young person after 6 p.m. - -	-	-	-	1	2	6
"	" "	" "	Employing a young person after 6 p.m. - -	-	-	-	1	2	6
"	" "	" "	Employing a young person after 6 p.m. - -	1	0	0	1	5	6
"	Charles Harrison, Stourport.	" "	Employing a young person after 6 p.m. - -	-	-	-	1	2	6
"	" "	" "							
			Information laid by Mr. Jones.						
Jan. 5	Noah Rostron, "Radcliffe Cross," near Manchester.	J. N. Phillips, and T. P. Hutchinson, Esqrs.; Bury.	For neglecting to securely fence an upright shaft, whereby a young person suffered a bodily injury.	10	0	0	0	17	6

Withdrawn on payment of writ.
" "
" "
" "

Appendix No. 2.

Table No. I.—*Accidents arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.& F.
Causing death	2	–	1	–	–	–	3	–	3
Amputation of right hand or arm	–	1	1	–	–	–	1	1	2
Amputation of part of right hand	5	8	3	14	–	–	8	22	30
Amputation of part of left hand	3	1	4	6	–	–	7	7	14
Amputation of any part of leg or foot	1	–	–	–	–	–	1	–	1
Fracture of limbs and bones of trunk	6	–	3	3	1	–	10	3	13
Fracture of hand or foot	3	2	6	4	3	1	12	7	19
Injuries to head and face	2	2	5	6	4	1	11	9	20
Lacerations, contusions, and other injuries not enumerated above	39	30	73	55	5	6	117	91	208
Total	61	44	96	88	13	8	170	140	310

Table No. II.—*Accidents not arising from Machinery.*

Nature of Injury.	Adults.		Young Persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.& F.
Fracture of limbs and bones of trunk	–	–	1	–	1	–	2	–	2
Injuries to head and face	–	2	–	–	–	–	–	2	2
Lacerations, contusions, and other injuries not enumerated above	4	–	3	2	–	–	7	2	9
Total	4	2	4	2	1	–	9	4	13

647

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